STATEWIDE TRANSFER AND ARTICULATION COMMITTEE (STAC):

2004 PROGRESS REPORT*

December 22, 2004

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^{*}A progress report is a staff paper that presents current information on issues of continuing interest to the Commission. It does not necessarily represent the opinion of the Commission or of individual members.

2004 Progress Report of the Statewide Transfer and Articulation Committee (STAC)

Executive Summary

Articulation of Degree Programs

- 1) Ivy Tech and VU each have over 1,000 articulation agreements with specific campuses for specific programs (see tables on pages 7 & 8).
- 2) Ivy Tech and VU liberal arts concentrations transfer to each four-year campus and apply systemwide, i.e. they apply to any Ivy Tech or VU campus offering those concentrations.
- 3) In five key disciplines more articulation agreements need to be developed and local agreements need to be transformed into systemwide agreements (see page 9).
- 4) IU has developed a formal process with deadlines for expanding articulation agreements with Ivy Tech (see pages 59 & 60).
- 5) STAC has agreed that:
 - ✓ All program transfer arrangements need to be formalized in signed articulation agreements;
 - ✓ A framework will be developed to serve as a model for articulation agreements; and
 - ✓ The norm is systemwide articulation agreements, i.e. the agreements apply to all Ivy Tech and VU campuses offering a degree.

Transfer of Courses

- 1) For both Ivy Tech and VU, the vast majority of the 39 most frequently taken courses have transfer equivalencies at all four-year campuses (see TINgrids on pages 17 & 18).
- 2) STAC has agreed that for the most frequently taken courses, the receiving campus would apply a transferred course in the same way it would that campus' own equivalent course.
- 3) STAC will update the TINgrids for Ivy Tech and VU on an annual basis and expand them to include more general education courses offered by Ivy Tech and VU.

MEMORANDUM

To: Commission for Higher Education

From: Otto Doering, Chairman, Statewide Transfer and Articulation Committee

Date: December 22, 2004

Subject: STAC Annual Report

Herewith is the report for the past year of the Statewide Transfer and Articulation Committee. We have made some important progress this year and I am convinced that the full set of state institutions of higher education are fully committed to this task. Again, our goal is a transfer system that is in the best interests of the students. Transfers that work for the student, so the student is well prepared for the next level, is what we are aiming for. A transfer where the student does not have what is needed for moving ahead does no one any good – the student, the institution, or future employers.

We are also concerned with integrating the system more broadly to include transmission of transcripts, including those between secondary schools and institutions of higher education. Another critical area of concern is advanced placement from the secondary schools to institutions of higher education. Again, the transfer should be an easy task for the student, but the system has to make it clear to all where the transfer is appropriate so that the student will be well prepared for the next step.

This process is a little bit like the image of Peanut's Snoopy crossing World War I battle lines. Some progress is made, then Snoopy has to crawl under another set of barbed wire and cross another trench. At STAC we have made serious progress in getting the reporting from the institutions consistent. This progress then uncovers anomalies that we need to go back and deal with. In addition, we also are at a point where the mechanics of keeping track of the articulations is getting overwhelming. This is one of the primary reasons why we need to have some centralized system like the statewide website with the supporting data and infrastructure that will allow us to assess where we are, what is in place, and where we need to make further extensions of transfers.

We have some high priority areas where we need to make some more progress in the months ahead:

- We want to see what can be done to encourage further appropriate articulation agreements in the areas of computer information systems, business administration, early childhood education, and nursing.
- Now that the reporting of information is more consistent, we are concerned about the
 wide range of different numbers of courses that transfer between Ivy Tech and the
 different campuses of Purdue and IU. Appropriate transfers from Ivy Tech should have
 some consistency between regional campuses of IU or Purdue.

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SECTION ONE

OVERVIEW

Transfer Indiana Initiative

The Commission for Higher Education launched the *Transfer Indiana* initiative in early 2000. (See Appendix A for a chronology of transfer-related activities in Indiana.) At its April 2000 meeting, the Commission identified the following objectives for the initiative:

- 1. To develop statewide transfer-of-credit agreements for courses that are most frequently taken by undergraduates;
- 2. To develop statewide agreements whereby Associate of Arts and Associate of Science programs will articulate fully with related baccalaureate degree programs; and
- 3. To publicize by all appropriate means, including an electronic website, a master list of course transfer-of-credit and program articulation agreements.

To accomplish these objectives, the Commission established two committees: the Statewide Transfer and Articulation Committee and the Web Site Development Committee. The Commission also committed itself to "make a progress report to the Governor and General Assembly each year regarding the work of the committee on statewide transfer and articulation." This report fulfills the Commission's reporting commitment for the first year of the Committee's activities.

Statewide Transfer and Articulation Committee (STAC)

The membership of STAC consists of two or three representatives from each public institution and includes representation from the Independent Colleges of Indiana (see Appendix B for a list of the members). Dr. Otto Doering, a professor at the Purdue University West Lafayette campus and a former faculty member of the Commission for Higher Education, was appointed by the Commission as the current chair of STAC. STAC held its first meeting on June 20, 2000 and has met a total of 46 times as of December 2004.

At various times, STAC has made use of state-level sources outside Indiana and national sources to provide information about important developments in transfer and articulation and to stimulate discussion about actions being planned and implemented in Indiana. STAC and the Web Site Development Committee jointly hosted a regional conference on transfer web sites on October 29, 2003 in Indianapolis, which included representation from:

- Kentucky Council on Higher Education
- Miami University of Ohio
- Northern Illinois University
- Ohio Board of Regents
- University of Illinois at Urbana/Champaign

- University of Wisconsin Madison Campus
- University of Wisconsin System Administration

Action by the General Assembly

Rep. Ron Herrell (D-Kokomo) introduced HB 1209 to increase transfer of credit among regional and main campuses, especially with respect to credits accepted by regional campuses through articulation agreements with Ivy Tech State College. Following hearings on February 11-12, 2003, which included testimony from Indiana University, Purdue University, and the Commission for Higher Education, the House Committee on Education removed language mandating that articulation agreements reached by regional campuses had to apply at other regional campuses and at the main campuses. The amended bill, which now included references to the Statewide Transfer and Articulation Committee (STAC), was voted out of the House 90-0.

On March 19, the Senate Committee on Education and Career Development removed language that called for an interactive, student-accessible transfer web site, which STAC had supported, but which also had a significant fiscal impact (\$1.3 million in FY2004 and \$600,000 in annual recurring funds). The Senate passed the amended bill by a vote of 49-0.

Representative Herrell consented to the amendments made in the Senate, and the amended bill passed the House 85-0 on March 27. Governor O'Bannon signed the bill on April 14, with the bill becoming law effective July 1, 2003.

The bill passed by the General Assembly amends the Commission's statutory mission and calls on the Commission to:

- Direct the activities of STAC;
- Develop through STAC "statewide transfer of credit agreements for courses that are most frequently taken by undergraduates;"
- Develop through STAC statewide agreements for associate degree programs that "articulate fully with related baccalaureate degree programs;"
- "Publicize by all appropriate means, including an Internet web site, a master list of course transfer of credit agreements and program articulation agreements;"
- Submit a progress report to the Legislative Council by August 30th of each year on "the status of the transfer of courses and programs ... [including] any changes made during the immediately preceding academic year."

Systems Development Committee (formerly Web Site Development Committee)

The membership of the Systems Development Committee consists of at least one representative from each public institution and a representative from the Independent Colleges of Indiana (see Appendix C for a list of the members). The Web Site Development Committee, as it was known then, met during 2000-01 and worked on three principle tasks: (1) determining whether the statewide web site should be supported by purchasing existing software used in other states or by

developing customized software for exclusive use in Indiana, (2) developing a budget for initial implementation and on-going operation of the web site, and (3) recommending an institution to run the web site (Ball State University was selected). After the Committee's funding recommendation was incorporated into the Commission for Higher Education's budget request for the 2001-2003 Biennium, which did not receive funding, the Committee became inactive until late 2003. Since December 2003, the Committee, now reconstituted as the System Development Committee, worked jointly with STAC to develop an updated funding request that was presented to the Commission for Higher Education for recommended inclusion into the Commission's 2005-2007 Biennial Budget recommendation or for submission to outside funding sources.

SECTION TWO

PROGRAMS THAT TRANSFER

The data base on which the tables in this section have been developed consists of a master list of articulation agreements that have been developed between Ivy Tech and the four-year institutions and between Vincennes and the four-year institutions. This master list is accessible on the Commission's web site: www.che.state.in.us/transfer/

An Overview of Programs That Transfer

The first two tables in this section describe the extent to which associate degree programs from Ivy Tech State College and Vincennes University articulate with baccalaureate degree programs offered by Indiana's public, four-year campuses. More specifically, these two tables report the annual number of articulation agreements reached by the two institutions for the period 1995-2004, along with a cumulative total.

Programs That Transfer in Five Discipline Areas and the Liberal Arts

The next table in this section describes the extent to which program articulation agreements have been developed and apply in five specific disciplines and the liberal arts concentrations of the A.A./A.S. degrees available as part of the Community College System:

- Business Administration
- Computer Information Systems
- Criminal Justice
- Early Childhood Education
- Nursing
- Liberal Arts Concentrations

These five disciplines were selected because (1) a subcommittee has been formed under the leadership of STAC to examine transfer opportunities between Ivy Tech and Vincennes and the four-year institutions and/or (2) a large number of students are enrolled in these programs. As noted by examining these tables, significant gaps in the coverage of articulation agreements exist in four out of the five discipline areas.

Actions Taken

Institutions have initiated a number of actions to address the significant gaps identified above, including:

- Indiana University has put in place systematic processes for developing more comprehensive statewide transfer and articulation agreements between IU and Ivy Tech (See Appendix F).
- Vincennes University has put in place a process for systematically developing articulation agreements with all Indiana University and Purdue University regional campuses.

In addition, at its November 30, 2004 meeting, STAC embraced the following principles:

- 1. All program-to-program transfer arrangements need to be formalized in articulation agreements that are signed by senior campus-wide administrators in the respective campuses of institutions.
- 2. STAC will develop a framework for articulation agreements that can serve as a model for institutions as they articulate programs.
- 3. The norm for articulation agreements involving Ivy Tech and Vincennes associate degrees is that they apply systemwide, to be treated in the same way by the receiving campus from every Ivy Tech or Vincennes campus on which those associate degrees are offered.

The first of these actions is significant because there are many instances in which, for example, Purdue University has traditionally accepted the credit of VU transfer students but has never formalized these arrangements. Formal agreements are desirable because they add predictability and help ensure that the arrangements will be consistently applied over time.

Articulations between lvy Tech State College and Four-Year Campuses, by Academic Year Agreement Was Effective

December 2004

Total	0 2 5 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	201	0 21 12 245	278	112	318	176	1,010	
2004	, ~ ~ , ~ ~ , , , ,	7		9	7		15	35	1,085
2003		103	9 - 74	99		12		171	1,050
2002	40 0 10 . 0 -	46	4	44	10	42		142	879
2001		-	, ~ , ,	-	•	43	24	69	737
2000	. .	4			53		36	93	899
1999	4 .	9	۱ ، ۵ ،	2	10	7	4	36	575
1998		4		•	21		•	25	539
1997	0	4	. 1 . 155	166	7	204	41	426	514
1996		•	1 1 1 1		•	9	•	9	88
1995		2					8	7	83
Prior to 1995	5000000-	21	0000	0	0	0	54	1	75
	IU (Sch. of Nrsg.) IUB IUE IUK IUN IUSB IUS IUS	IU Subtotal	PUWL PUC PUNC IPFW	PU Subtotal	BSU	ısı	n s n	Annual Total	:umulative Total

Articulations between Vincennes University and Four-Year Campuses, by Academic Year Agreement Was Effective

Total	13 80 80 80 80 80 80 128	623	08 8 8 8	320	87	139	114	1,283	
2004*		•	1 1 1 1		•		ı	ı	1,283
2003						15	1	15	1,283
2002		-				12	ı	13	1,268
2001	, 88 88 88 8	260	80 80 80 80	320	80	88	80	1,129	1,255
2000	5	25					ı	25	126
1999		•					-	-	101
1998		33			-	20	33	87	100
1997		-		·	4	7	ı	7	13
1996							ı	0	9
1995		က			7	-	ı	9	9
Prior to <u>1995</u>	00000000	0	0000	0	0	0	0	,	0
	IU (Kelly Sch) IUB IUE IUK IUN IUSB IUS IUS	IU Subtotal	PUWL PUC PUNC IPFW	PU Subtotal	BSU	nsı	ISN	Annual Total	:umulative Total

*Not available

Note: table does not reflect long-standing articulations, for which no formal articulation agreement in a contemporary format is available.

December 2004

lvy Tech and VU Articulations with Four-Year Institutions in Selected Program Areas

	\$n,	为	机	M	&n,	Agn,	17dn	O'lhani	In.	€ 5 _¢	N.	NH,	368	76,	67
lvy Tech System															
Business Administration	Š	Local	Local	Local	Local	Local	8	N _o	8 N	Local	Local	System	System	System	System
Computer Information Systems	N _o	Local	N _O	Š	Š	Š	System	N _O	Š	Local	8	System	8	System	System
Criminal Justice	Š	n/a	System	System	System	n/a	System	n/a	n/a	n/a	n/a	System	n/a	System	n/a
Early Childhood Education	N _o	No	No	Š	Š	Š	Local	Local	Š	Š	Š	No	System	System	System
Nursing	System	System	System	System	System	System	System	System	Local	Local	Local	No	System	System	System
Liberal Arts Concentrations	System	System	System	System	System	System	System	System	System	System	System	System	System	System	System
Vincennes University															
Business Administration	Local	N _O	N _o	Š	Š	Š	Local	No	Š	8 N	Š	No	N _o	Local	Local
Computer Information Systems	N _o	N _o	N _O	Š	Š	Š	Local	N _O	Š	Š	Š	No	8	Local	Local
Criminal Justice	System	n/a	N _O	Š	8 N	Š	System	n/a	n/a	n/a	n/a	System	System	System	n/a
Early Childhood Education	N _o	N _O	N _O	Š	8	Š	8	S S	Š	8	Š	No	8	N _o	System
Nursing	8 N	No	N _O	Š	Š	Š	Š	No	Š	N _O	Local	S S	N _o	System	Local
Liberal Arts Concentrations	System	System	System	System	System	System	System	System	System	System	System	System	System	System	System

Systemwide articulation: the articulation agreement applies to graduates from any lvy Tech campus at which the program is offered, or for VU, from any VU campus (Vincennes, Jasper, or Indianapolis)	-ocal or less than systemwide articulation	on agreement in place	Vo baccalaureate program with which to articulate
Systemwide articulation: the ar at which the program is offe	Local or less than systemwide	No articulation agreement in place	No baccalaureate program with
System	Local	No	n/a

December 21, 2004

SECTION THREE

COURSES THAT TRANSFER

Refinements in Methodology

The data reported in last year's Progress Report represented the first time that the number of Ivy Tech and Vincennes courses that transfer had been assembled for all public institutions and campuses. The baseline data reported last year for Academic Year 2002-03 (AY2003) is repeated in this Progress Report, along with new data for AY2004.

In one important respect, the data reported for AY2003 and AY2004 are similar: they both include courses that Ivy Tech and Vincennes were currently teaching in each of the respective years. However, in two other respects the data reported for the two years differ. First, the AY2003 data include courses that had been taught in previous years but were no longer being offered. By contrast, the data reported for AY2004 did not include such courses. This change was made to focus attention more clearly on the most current state of transfer between two- and four-year institutions. Second, in some cases the data reported for AY2003 did not include courses that would count as electives, whereas the data reported for AY2004 consistently include courses that transfer for elective credit, which provides a more accurate assessment of transfer both at the campus and statewide levels.

Courses Offered by Ivy Tech and Vincennes

It should be noted that the total number of courses reported for Ivy Tech and Vincennes does not include remedial courses, special or individualized studies courses, or apprenticeship technology courses. All other liberal arts and technical, occupational, or professional courses are included in the count.

Interpreting the Data

Several points should be kept in mind when interpreting the data on courses that transfer. First, consolidating or splitting apart courses offered by Ivy Tech or Vincennes could have at least a minor, technical impact on the count of courses that transfer. For example, if a course that is accepted for transfer and that has both a lecture and laboratory component is split apart into separate lecture and laboratory course listings, each with its own course number and title, the count of courses that transfer might jump from one to two on purely technical grounds. Likewise, if the reverse were true, the count of transfer courses might decrease by one.

Second, size and scope of course offerings of a four-year institution will impact the number of Ivy Tech and Vincennes courses that might transfer. More specifically, if a campus does not offer courses in a particular disciple, it might not accept courses in that discipline for transfer. For example, Purdue West Lafayette might accept agriculture courses from Vincennes because Purdue has a School of Agriculture, whereas IU Bloomington might not accept these VU courses because it does not have such a school.

Number of Courses That Transfer From Public Two-Year to Public Four-Year Campuses, AY2003-AY2004

Academic Year 2002-03 (AY2003) Data Based on Courses Offered That Year Plus Discontinued Courses from Previous Years Academic Year 2003-04 (AY2004) Data Based on Courses Only Offered That Year, Including Courses Accepted as Electives

	· kv	lvy Tech State College	llege	As a % of	Vir	Vincennes University	ersity	As a % of
Campus	AY2003	Change from AY2003	AY2004	Offered by Ivy Tech	AY2003	Change from AY2003	AY2004	All Courses Offered by Vincennes
IU Bloomington	33	98	119	10%	573	303	876	28%
IU East	36	∞	4	4%	585	- 105	480	32%
IU Kokomo**	29	2	64	%9	175	2	177	12%
IU Northwest	69	7	92	%2	788	0	788	52%
IU South Bend	204	39	243	21%	83	750	833	22%
IU Southeast**	77	∞	85	%2	798	0	798	23%
IUPUI**	394	58	452	39%	1,250	- 50	1,200	%08
Subtotal, IU	872	211	1,083		4,252	006	5,152	1
Purdue West Lafayette**	35	24	29	2%	1,490	- 23	1,467	%86
Purdue Calumet*	806	195	1,103	%56	989	29	753	%09
Purdue North Central*	201	10	211	18%	275	0	275	18%
IPFW	432	51	483	42%	1,146	200	1,346	%06
Subtotal, Purdue	1,576	280	1,856		3,597	244	3,841	1
Ball State	269	432	701	%09	241	973	1,214	81%
Indiana State	691	ω	669	%09	681	358	1,039	%69
USI**	851	- 455	396	34%	1,073	- 5	1,071	71%
Total, All Institutions	4,259	816	5,075		9,844	2,133	11,977	
All Courses Offered by Ivy Te	lvy Tech and VU		1,159				1,501	

No asterisk indicates statewide transfer (i.e. the same course transfers from any lvy Tech campus). **One asterisk** indicates transfer from only the local lvy Tech campus.

Two asterisks indicate a mix of local and statewide transfer.

August 23, 2004

SECTION FOUR

DISCIPLINE SUB-COMMITTEES

Based on the experience of other states that have good transfer systems, STAC created five sub-committees, which were charged with developing statewide articulation agreements between associate degree programs offered by the Community College of Indiana partners and baccalaureate programs offered by public four-year institutions:

- Business Administration
- Computer Information Systems
- Early Childhood Education
- Electronics Technology
- Nursing

The early childhood and electronics technology subcommittees are about half-way through their review processes, while the nursing subcommittee has only just begun its work. The business administration and computer information systems subcommittees are currently inactive, although they could be reactivated if there was a need to address specific issues in these disciplines.

Additional subcommittees are contemplated in the following areas:

- Automated Manufacturing
- Design Technology (CAD)
- Visual Communications

SECTION FIVE

MOST FREQUENTLY TAKEN COURSES

Past Work

During the second half of 2000, STAC began working on identifying transfer equivalencies for the most frequently taken courses by undergraduates. Implementing this objective involved two major tasks: (1) identifying which courses were taken most frequently and (2) determining transfer equivalencies for these most frequently taken courses at each two- and four-year campus.

Pursuant to the first task, the Commission for Higher Education requested each institution to report the duplicated headcount enrollment for each of the 150 most frequently taken courses by undergraduates during the Fall 1999 semester. The four-year institutions sent a data file for each campus, whereas Vincennes University and Ivy Tech State College aggregated their data at the institutional level. Data for all sections of a course were combined into a single total for that course. The Commission and Indiana State University then worked together to group courses based on similarity in course title. The files from each institution or campus were then merged and ranked.

With respect to the second task, the institutions then carefully examined the top 39 most frequently taken courses (see Table 1) to determine if, in fact, the courses grouped by title were equivalent or if not, could they nonetheless satisfy elective requirements. The results of this examination are captured in large grids (known in STAC as TINgrids*), which describe how a course taken at one campus is accepted by every other campus in the public sector.

For the 39 most frequently taken courses, this amounts to over 11,000 separate decisions about transfer equivalency that need to be made for all 16 campuses in the public sector (for purposes of the TINgrid, Ivy Tech and Vincennes are each treated as a single campus). All members of STAC agree that the information contained in the TINgrids will be most useful to students and university faculty and staff when that information can be retrieved in the context of an automated degree audit system, which would be available on a statewide, interactive web site. This would enable one to see how a particular course would count toward a particular major.

Current Status and Conclusions

STAC continues to maintain that the TINgrids have only limited usefulness as a way to communicate transfer options for students and that a far superior way to communicate these options would be through a statewide transfer web site, which STAC has recommended. However, in the interests of communicating clearly among institutions about which of the most frequently taken courses have transfer equivalencies at other campuses, STAC agreed at its September 17, 2004 meeting to update and keep current the existing TINgrids. Furthermore, at that same meeting, STAC agreed to embrace the principle that a receiving campus would apply a transferred course, which was taken from this list of most frequently taken courses, toward meeting degree requirements in the same way it would that campus' own equivalent course. In a situation in which the transferring course is not an exact equivalent, the receiving institution will always consider applying such a course toward meeting graduation requirements and satisfying requirements within the major.

^{*} The term "TINgrids" stands for "Transfer Indiana grids," which display course equivalencies among all public institutions and campuses for the 39 most frequently taken courses.

Because of the priority placed on enhancing transfer from two-year to four-year institutions, the TINgrids only display transfer equivalencies at the universities for Ivy Tech State College and Vincennes University courses, respectively. While reverse transfers (four-year to two-year institutions) and lateral transfers (two-year to two-year or four-year to four-year) are also important, it was felt that simplified TINgrids, which only show how Ivy Tech and VU courses transfer to the four-year institutions, were more consistent with state priorities. By focusing just on two-to-four transfers, it will also become feasible to expand the general education courses listed in the TINgrids and to update them on an annual basis. This would be impractical if the TINgrids were multidirectional in nature, i.e. included four-to-two, four-to-four, and two-to-two transfer equivalencies.

The TINgrids on the following pages demonstrate that the vast majority of the Ivy Tech and VU most frequently taken courses have transfer equivalencies at the four-year institutions.

	lvy Tech Course Title, Credit Hours, & Prefix/Number	rs, & Prefi	x/Number	£ 9	(2)	Ē(3)	⊕ ∑	(5) IUSB	(9) (0)	(S)	(8) PWL	@ 2	(10) PNC	(11) IPFW	(12) BSU	(13)	(14) USI
-	1 Accounting Principles I	ю	ACC 101	BUS A201	BUS A201	BUS A201	BUS A201	BUS A201	BUS #2XX	BUS A201	NC	MGMT 200	BUS Undist	BUS A201	ACC 201	BUS 201	ACCT 201
6/	2 Anatomy and Physiology I & II	3+3 AN	ANP 101 + 102	NC	PHSL P261	BIOL#1XX	BIOL #1XX	PHSL #1XX	BIOL #1XX	BIOL N261	BIOL Undist	BIOL Condit B	BIOL 203 + 204	BIOL 203 + 204	ANAT 201 + PHYSL LIFS 231/L + 241/L 210 + 211	JFS 231/L + 241/L	BIOL 121 & 122
e	3 Cultrual Anthropology	e	ASO 154	ANTH E105	ANTH A104	ANTH 101	ANTH A104	ANTH E105	ANTH E105	ANTH A104	ANTH 100	Pending	ANTH 100	ANTH E105	ANTH 101	ANTH 204	ANTH 101
4	4 Art Appreciation	က	HAH 110	FINA H100	FINA H100	FINA #2XX	FINA 100	FINA H100	FINA H100	HER H100	A&D 255	A&D 255	A&D 255	FINA H101	AHS 100	ART 151	ART 201
ς.	5 [No Astronomy Course Offered]																
9	6 General Microbiology	5 BI	BIO 211 + 212	S	NC	MICR #2XX	BIOL M200	MICR #2XX	MICR #2XX	BIOL #2XX	BIOL Undist	BIOL Undist	BIOL Undist	BIOL Undist	BIO 213	LIFS 274 + 274L	NC
7	7 Business Communications	က	OAS 216	SC	BUS C204	S	SPCH #2XX	SPCH #1XX	BUS #2XX	BUS #2XX	NC	COM Condit	BUS Undist	BUS Undist	BIT 241	ELEC 001	ASBE 231
00	8 Introduction to Business	3	BUS 101	BUS X100	BUSW100	BUS 100	BUS W100	BUS W100	COAS W100	BUS X100	NC	MGMT 101	BUS Undist	BUS W100	BUSAD 101	MGT 140	MNGT 141
s)	9 Chemistry I	8	CHM 101	NC	NC	CHEM C100	CHEM 100	CHEM #1 XX	CHEM C101	CHEM C100 + C120	CHM Undist	CHM 111	CHM Undist	CHM 111	CHEM 100	CHEM 100+100L	O Z
10	0 Lifespan Development	e	PSY 201	S	SC	PSY P216	EDUC P214	PSY P216	PSY #2XX	PSY #2XX	S	PSY Undist	PSY 230	PSY 369	EDPSY 250	PSY 266	S
-	1 Introduction to Microcomputers Computer Fundamentals for Technology	ოო	CIS 101 TEC 104	BUS K201 NC	COLIG100 NC	CSCI C100 NC	CSCI A106 NC	CSCI A106 NE	CSCI C106 CSCI #1XX	CSCIN100 CS #1XX	CPT 135 NC	CIS 204 EET Undist	CPT 107 Undist	CS 106 EET Undist	CS 104 CS 104	CS 101 CS 151	CIS 151 NC
12	2 Introduction to Criminal Justice Systems	ю	CRJ 101	N _C	Ä	SPEA J101	SPEA J101	Pending	Pending	NC	S S	Condit	SOC 328	SPEA J101	CJC 101	CRIM 150	NC
13	3 Earth Science	ю	SES 100	GEOL G103	GEOG #1XX	GEOG 107	GEOL 101	GEOG #1XX	GEOG #1XX	Elective	EAS 100	EAS 100	EAS 100	GEOL G100	GEOG 101	GEOL 160	GEOG 112
4	4 Principles of Macroeconomics	8	ECN 201	NC	ECON E104	ECON 202	ECON 104	ECON E104	ECON E107	NC	ECON Undist	ECON Undist	ECON Undist	ECON E202	ECON 202	ECON 200	ECON 209
15	5 Principles of Microeconomics	က	ECN 202	NC	ECON E103	ECON 201	ECON 103	ECON E103	ECON E108	ECON E201	ECON Undist	ECON Undist	ECON Undist	ECON E201	ECON 201	ECON 201	ECON 208
16	6 English Composition I	က	ENG 111	ENG X101	ENG W131	ENG W131	ENG W131	ENG W131	ENG W131	ENG W131	ENGL 101	ENGL 104	ENGL 101	ENG W131	ENG 103	ENG 101	ENG 101
17	7 Exposition and Persuasion	3	ENG 112	ENG W131	ENG W132	ENG W132	ENG W132	ENG #1XX	ENG #1XX	ENG W132	ENGL 102	ENGL 105	ENGL 102	ENG W233	ENG 104	ENG 105	ENG 201
18	8 Creative Writing	8	HEW 202	ENG W103	ENG W203	ENG #2XX	WNG W103	ENG W203	ENG W203	ENG W206	ENGL 305	ENGL 405	ENGL 305	ENG W103	ENG 286	ENG 001	ENG 302
19	9 Technical Writing	8	ENG 211	NC	BUS C204	ENG W231	ENG W231	ENG #2XX	ENG #2XX	ENG W234	ENG Undist	ENGL 220	ENGL 220	ENG W234	ENG 231	ENG 105	ENG 210
20	0 World Geography	8	SES 207	GEOG G120	GEOG G110	GEOG G107	GEOG G201	GEOG G201	GEOG G201	GEOG G130	EAS 120	EAS Condit	EAS 120	GEOG Undist	GEOG 150	GEOG 130	GEOG 330
21	1 World Civilization I	3	HIST 235	HIST #2XX	HIST #2XX	HIST H113	HIST H113	HIST H113	HIST #2XX	HIST H108	HIST Undist	HIST 110	HIST Undist	HIST H113	HIST 151	HIST 101	HIST 111
22	2 Survey of American History I	က	HSY 101	HIST H105	HIST H105	HIST H105	HIST H105	HIST H105	HIST H105	HIST H105	HIST 151	HIST 151	HIST 151	HIST H105	HIST 201	HIST 201	HIST 101
23	3 Survey of American History II	ဗ	HSY 102	HIST H106	HIST H106	HIST H106	HIST H106	HIST H106	HIST H106	HIST H106	HIST 152	HIST 152	HIST 152	HIST H106	HIST 202	HIST 202	HIST 102
24	4 Nutrition	8	HOS 104	NC	Ш Ш	NC	NURS B215	HPER N231	NC	NC	NC	F&N Condit	F&N 303	FNN 303	FCSFN 275	FCS 201	NC
25	5 Brief Calculus I	е	MAT 201	NC	N N	NC	Pending	MATH #1XX	MATH M119	MATH 119	MA 220	Pending	Undist	MA 229	MATHS 132	MATH 001	NC
26	6 College Algebra	4	MAT 133	NC	MATH M125	MATH 117	MATHS M117	MATH M107	MATH M125	MATH 153	MA 153 + Undist	MA 153	MA 153	MA 153	MATHS 109	MATH 111	MATH 111
27	7 Finite Math	8	MAT 135	NC	MATH M126	MATH 126	MATH 126	MATH M126	MATH M126	Pending	MATH Undist	MA Condit	MATH Undist	MA 213	MATHS 131	MATH 201	MATH 112
28	8 Trigonometry	2	MAT 134	NC	MATH M126	MATH 126	MATH 126	MATH M126	MATH M126	Pending	MATH Undist	MA Condit	MATH Undist	MATH Undist	MATHS 112	MATH 112	MATH 112
29	9 Medical Terminology	ဗ	HHS 101	NC	NC	CLAS #1XX	AHLT 195	AHLT R185	AHLT M195	AHLT W105	NC	CLCS UND	GBH Undist	NUR 106	NUR 101	ATTR 225	HP 115
30	0 Introduction to Ethics	က	PHL 102	NC	PHIL P140	PHIL P120	PHIL P140	PHIL #1XX	PHIL P140	PHIL P120	PHIL Undist	PHIL 111	PHIL 111	PHIL 111	PHIL 202	PHIL 201	PHIL 201
31	1 Introduction to Philosophy	8	PHL 101	PHIL P100	PHIL P100	PHIL P100	PHIL P100	PHIL P100	PHIL P100	PHIL P110	NC	PHIL 110	PHIL 110	PHIL 110	PHIL 100	PHIL 101	PHIL 200
32	2 Logic	က	HPP 213	PHIL P150	PHIL P150	PHIL P150	PHIL P150	PHIL P150	PHIL P150	PHIL P162	PHIL Undist	PHIL 150	PHIL 120	PHIL 150	PHIL 999	PHIL 105	PHIL 205
33	Physics I Physics 1 and 2	4 + 4 H	PHY 101 PHY 101 + 102	N NC	Pending PHYS P201	PHYS 201 NC	PHYS #1XX PHYS P201	PHYS#2XX PHYS#1XX	PHYS X1XX PHYS #1XX	PHYS 218 PHYS 218 + 219	PHYS Undist PHYS 220	PHYS 107 PHYS 220	PHYS Undist PHYS 220	PHYS 218 PHYS 218 + 219	PHYCS 110 PHYCS 110 + 112	PHYS 105/L PHYS 105/L + 106/L	PHYS 175 NC
34	4 Introduction to American Government and Politics	က	POL 101	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POL 101	POL 101	POL 101	POLS Y103	POLS 130	PSCI 201	POLS 102
35	5 Introduction to Psychology	8	PSY 101	PSY P101	PSY P103	PSY P103	PSY P101	PSY P103	PSY P101	PSY B105	PSY 120	PSY 120	PSY 120	PSY 120	PSYSC 100	PSY 101	PSY 201
36	6 Introduction to Sociology	က	SOC 111	SOC S100	SOC S100	SOC S100	SOC S161	SOC S161	SOC S163	SOC R100	SOC 100	SOC 100	SOC 100	SOC S161	SOC 100	SOC 022	SOC 121
37	7 Spanish I Spanish II	4 4	SPN 101 SPN 102	<u> </u>	W W	SPAN S111/NC NC	SPAN S100 SPAN S150	SPAN S101 SPAN S102	Pending Pending	0 0 0 0	0 0 2 0	SPAN 101 + Undist SPAN 102 + Undist	SPAN 101 SPAN 102	SPAN S111 SPAN S112	SP 101 SP 102	SPAN 101 SPAN 102	N N
38	8 Fundamentals of Public Speaking	e	COM 101	CMLC C121	SPCH S121	SPCH S121	SPCH S121	SPCH S121	SPCH S121	COMM R110	COM Undist	COM 114	COM 114	COM 114	COMM 210	COMM 101	SPCH 101
39	9 Acting1	က	HSS 100	THTR T210	THTR T120	THTR #1XX	THTR T100	THTR T120	THTR T105	THTR T210	THTR 201	THTR 138	THTR 201	THTR 138	THEAT 232	THTR 150	THTR 121

Principles Accounting 2+1 Auratomy and Physiology 2+1 Auratomy and Physiology 2+1 Auratomy and Physiology 3+1 Human Systems Anatomy & Physiology 3+1 Human Systems Anatomy & Physiology 3+1 Ill And Appreciation 3 General Macrobiology 3+2 Bushess Communications 3+2 Bushess Communications 3+2 Ill Developmental Psychology 3+2 Psychology, Growth, and Change 3+2 Psychology, Growth, and Change 3+2 Psychology, Growth, and Change 3+2 Bushess Communications 3+2 Auratomy of Criminal Justice 3+2 Starth Science 3+2 Auratomy of Criminal Justice 3+2 Auratomy of Criminal Justi	ACCT 201 LFSC/L 111 LFSC/L 212 LFSC/L 212 SOCL 154 ARTT 110	BUS A201	BUS A201 PHSL #1XX	ACC #2XX	BUS A201	BUS A201	BUS A201	BUS A201	MGMT Undist	MGMT 200	MGMT Undist	BUS A201	ACC 201	BUS 201	ACCT 201
Anatomy and Physiology I	LESC/L 111 LESC/L 112 LESC/L 211 LESC/L 212 SOCL 154 ARTT 110		PHSL #1XX		>> ====================================		olo: 41 xx				000		ANIAT 201		
Human Systems Anatomy & Physiology Ultrual Anthropology Art Appreciation General Astronomy General Microbiology Business Communications Introduction to Business General Chemistry I Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	LFSC/L 212 SOCL 154 ARTT 110 ERTH 210	ANAT 1XX ANAT 1XX ANAT A215	PHSL #1XX PHSL #2XX	ANAT A215 ANAT #1 XX ANAT #2 XX	BIOL #1XX PHSL 261	PHSL #100 PHSL P262 PHSL #2XX	BIOL #1XX BIOL #2XX	BIOL #1XX BIOL #1XX BIOL N261	BIOL Undist BIOL Undist BIOL Undist	BIOL Condit BIOL Condit BIOL 213	BIOL 203 BIOL 204 BIOL 213	BIOL 203 BIOL 204 BIOL 215	PHYSL 201 ANAT 999	LIFS 231/L LIFS 241/L LIFS 231	BIOL 121 BIOL 122 BIOL 121
Cutrual Anthropology Ant Appreciation General Astronomy Stellar Astronomy General Microbiology Business Communications Introduction to Business General Chemistry I Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	SOCL 154 ARTT 110 ERTH 210	PHSL P215	PHSL #2XX	ANAT #2XX	PHSL262	PHSL #2XX	BIOL #2XX	BIOL N217	BIOL Undist	BIOL 214	BIOL 214	BIOL 216	PHYSL 999	LIFS 241	BIOL 122
Art Appreciation General Astronomy Stellar Astronomy General Microbio gry General Microbio gry Business Communications Introduction to Business General Chemistry 1 Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	ARTT 110 ERTH 210	ANTH E105	ANTH A104	ANTH 101	ANTH A104	ANTH E105	ANTH E105	ANTH A104	ANTH 100	Pending	ANTH 100	ANTH E105	ANTH 101	ANTH 204	ANTH 101
General Astronomy shellar Astronomy deneral Microbio bgy deneral Microbio bgy Business Communications Introduction to Business deneral Chemistry I Devebommental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	ERTH 210	FINA H100	FINA H100	FINA #2XX	FINA 100	FINA H100	FINA H100	HER H100	A&D 255	A&D 255	A&D 255	FINA H101	AHS 100	ART 151	ART 201
General Microbiology Business Communications Introduction to Business General Chemistry I Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	ER 17 2 1	AST A110 AST A105	AST A100 AST A100	AST A104 AST #2XX	AST A100 AST A105	AST #2XX AST #2XX	AST #2XX AST A105	AST A100 AST A105	ASTR 263 ASTR 264	EAS 361 ASTR Condit	ASTR 263 ASTR 264	AST A100 AST A105	ASTRO 100 ASTRO 999	GEOL 360 GEOL 021	PHYS 271 PHYS 271
Business Communications Introduction to Business General Chemistry I General Chemistry I Developmental Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	LFSC/L 230	Pending	Pending	Pending	Pending	Pending	Pending	Pending	BIOL Undist	BIOL Undist	BIOL Undist	BIOL 220	BIOL 999	LIFS 274+274L	BIOL 272
Introduction to Business General Chemistry I Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics	ENGL 205	BUS X204	BUS C204	SPCH 251	SPCH S223	SPCH S223	ENG W231	BUS X204	ENGL 420	ENGL Condit	ENGL 420	COM 323	BIT 241	ENG 105	ASBE 231
General Chemistry I Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics Microeconomics	MGMT 100	BUS X100	BUSW100	BUS 100	BUS W100	BUS W100	COAS W100	BUS X100	MGMT Undist	MGMT Undist	BUS Undist	BUS W100	BUSAD 101	MGT 140	MNGT 141
Developmental Psychology Psychology, Growth, and Change Introduction to Computer Applications Survey of Criminal Justice Earth Science Macroeconomics Microeconomics	CHEM/L 105	CHEM C105	CHEM C105 or C125	CHEM C105 + C125	CHEM 105	CHEM #1XX	CHEM C105	CHEM C105	CHM 115	CHM 111	CHM Undist	CHM 115	CHEM 111	CHEM105/L	CHEM 261
Introduction to Computer Applications Survey of Crimnal Justice Earth Science Macroeconomics Microeconomics	PSYC 201 PSYC 202	PSY P216 HPER F150	PSY #2XX PSY #2XX	PSY P216 PSY #2XX	EDUC P214 EDUC P214	PSY #2XX PSY #2XX	PSY #2XX PSY #2XX	Elective Elective	PSY 230 PSY Undist	CDFS 210 PSY Undist	PSY 230 PSY Undist	PSY 235 PSY Undist	EDPSY 250 EDPSY 999	PSY 266 PSY 001	PSY 261 PSY 261
Survey of Criminal Justice Earth Science Macroeconomics Microeconomics	COMP 110	CSCI A110	COLI #1XX	CSCI C100	CSCI C106	CSCI A106	CSCI C100	CPT 106	CPT 145	CIS 204	CPT 145	BUS Undist	CS 104	CS 101	CIS Elec
Earth Science Macroeconomics Microeconomics	LAWE 100	CJUS P100	SPEA J101	SPEA J101	SPEA J101	SPEA J101	SPEA J101	SPEA J101	SOC Undist	SOC 343	SOC 328	SPEA J101	CJC 101	CRIM 150	SOC Elec
Macroeconomics Microeconomics	ERTH 100	GEOL G103	GEOG #1XX	GEOG 107	GEOL 101	GEOG #1XX	GEOG #1XX	Elective	EAS 100	EAS 100	EAS 100	GEOL G100	GEOG 101	GEOL 160+160L	GEOG 112
Microeconomics	ECON 202	ECON E202	ECON E104	ECON 202	ECON 104	ECON E104	ECON E107	ECON E202	ECON 252	ECON 252	ECON 252	ECON E202	ECON 202	ECON 200	ECON 209
	ECON 201	ECON E201	ECON E103	ECON 201	ECON 103	ECON E103	ECON E108	ECON E201	ECON 251	ECON 251	ECON 251	ECON E201	ECON 201	ECON 201	ECON 208
16 English Composition I 3 Rhetoric and Research 3	ENGL 101 ENGL 112	ENG W131 ENG W131	ENG W131 ENG W131	ENG W131 ENG #1XX	ENG W131 ENG #1XX	ENG W131 ENG #1XX	ENG W131 ENG #1XX	ENG W131 ENG W132	ENGL 101 ENGL 103	ENGL 104 Pending	ENGL 101 ENGL 103	ENG W131 ENG W131	ENG 103 ENG 103	ENG 101 ENG 107	ENG Elec
17 English Composition II 3	ENGL 102	ENG W132	ENG W132	ENG W132	ENG W132	ENG W132	ENG #1XX	ENG W132	ENGL 102	ENGL 105	ENGL 102	ENG W233	ENG 104	ENG 105	ENG 201
18 Creative Writing 2 Creative Writing 3	ENGL 201 ENGL 202	ENG W103 ENG W103	ENG #2XX ENG W203	ENG W132 EN	ENG W301 or W303 WNG W103	ENG W203 ENG W203	ENG #2XX ENG W203	ENG W206 ENG W206	ENG Undist ENGL 305	ENGL Condit ENGL 405	ENG Undist ENGL 305	ENG W203 ENG W203	ENG 286 ENG 286	ENG 219 ENG 219	ENG Elec ENG 302
19 Business English 3 Technical Writing 3	ENGL 107 ENGL 108	BUS X204 ENG W231	BUS C204 ENG #3XX	ENG #1XX ENG W231	ENG #2XX ENG W231	ENG #2XX ENG #1XX	ENG W231 ENG W234	BUS#1XX TCM 220	ENG Undist ENGL 421	ENG Undist ENGL 220	ENG Undist ENGL 220	ENG Undist ENG W232	BIT 241 ENG 231	ENG 001	ASBE 231 ENG 210
20 World Geography 3	ERTH 207	GEOG G120	GEOG G110	GEOG G107	GEOG G201	GEOG G201	GEOG G201	GEOG G130	EAS 120	EAS Condit	EAS 120	GEOG Undist	GEOG 150	GEO 130	GEOG 330
21 Survey of European History I 3 Survey of European History II 3 World Chwitzation I 3 World Chwitzation II 3	HIST 131 HIST 132 HIST 235 HIST 236	HIST H103 HIST H104 HIST #2XX HIST #2XX	HIST #1XX HIST #1XX HIST #2XX HIST #2XX	HIST #1XX HIST #1XX HIST H113 HIST H114	HIST#1XX HIST#1XX HISTH113	HIST #1XX HIST #1XX HIST H113 HIST H114	HIST H103 HIST H104 HIST #2XX HIST #2XX	HIST H113 HIST H114 HIST H108 HIST H109	HIST Undist HIST 103 HIST Undist HIST Undist	HIST Undist HIST Undist HIST 110	HIST Undist HIST 103 HIST Undist HIST Undist	HIST Undist HIST Undist HIST H113 HIST H114	HIST 990 HIST 990 HIST 151 HIST 152	HIST 001 HIST 001 HIST 101	HIST 111 HIST 112 HIST 111 HIST 112
22 American History I 3	HIST 139	HIST H105	HIST H105	HIST H105	HIST H105	HIST H105	HIST H105	HIST H105	HIST 151	HIST 151	HIST 151	HIST H105	HIST 201	HIST 201	HIST 101
23 American History II 3	HIST 140	HIST H106	HIST H106	HIST H106	HIST H106	HIST H106	HIST H106	HIST H106	HIST 152	HIST 152	HIST 152	HIST H106	HIST 202	HIST 202	HIST 102
24 Fundamentals of Human Nutrition 3	FACS 206	HPER N231	NURS B215	Pending	NURS B215	HPER N231	PER #2XX	HPER N210	F&N 303	F&N Condit	F&N 303	FNN 303	FCSMR 275	FCS 201	BIOL 276
Calculus with Analytic Geometry	MATH 118	MATH M211	MATH M215	MATH#	MATHS M119	MATH #1XX	MATH M125	MATH 163	MA 161	MA Condit	Elec/Undist	MA 229	MATHS 161	MATH 131	MATH 122
College Algebra	MATH 102	MATH M025	MATH #1 XX	MATH 125	MATHS M125	MATH M107	MATH M122	MATH 153	MA 153	MA 153	MA 153	MA 153	MATHS 109	MATH 115	MATH 111
28 Triconometry 3	MATH 104	MATH M026	MATH M126	MATH 126	MATH 126	MATH M118	MATH M126	MATH M118	MA Undist	MA 154	MA 154	MA 154	MATHS 112	MATH 112	MATH 112
	HIMT 110	CLAS C209	NURS A111	CLAS 209	AHLT 195	AHLT R185	AHLT M195	Elective	HSCI 131	CLCS Undist	GBH Undist	NUR 106	CC 102	ATTR 225	HP 115
30 Introduction to Ethics 3	PHIL 212	PHIL P140	PHIL P140	PHIL P120	PHIL P140	PHIL P140	PHIL P140	PHIL P120	PHIL Undist	PHIL 111	PHIL 111	PHIL 111	PHIL 202	PHIL 201	PHIL 201
31 Introduction to Philosophy 3	PHIL 111	PHIL P100	PHIL #1XX	PHIL P100	PHIL P100	PHIL P100	PHIL P100	PHIL P110	PHIL 110	PHIL 110	PHIL 110	PHIL 110	PHIL 100	PHIL 101	PHIL 200
32 Logic 3	PHIL 213	PHIL P150	PHIL P150	PHIL P150	PHIL P150	PHIL P150	PHIL P150	PHIL P162	PHIL Undist	PHIL 150	PHIL 120	PHIL 150	PHIL 200	PHIL 105	PHIL 205
33 General Physics I 4+1	PHYS/L 105	PHYS P201	PHYS #1XX	PHYS 201	PHYS P201	PHYS #1XX	PHYS #1XX + PHYS P201	PHYS218	PHYS Undist	PHYSCondit	PHYS Undist	PHYS 220	PHYCS 999	PHYS105/L	PHYS 175
34 American National Government 3	POLS 111	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POLS Y103	POL 101	POL 101	POL 101	POLS Y103	POLS 130	PSCI 201	POLS 102
35 General Psychology 3	PSYC 142	PSY P101	PSY P103	PSY P103	PSY P101	PSY P103	PSY P101	PSY B105	PSY 120	PSY 120	PSY 120	PSY 120	PSYSC 100	PSY 101	PSY 201
36 Principles of Sociology 3	SOCL 151	SOC S100	SOC S100	SOC S100	SOC S161	SOC S161	SOC S163	SOC R100	SOC 100	SOC 100	SOC 100	SOC S161	SOC 100	SOC 022	SOC 121
	SPAN 101	HISP S100	SPAN S100	SPAN 111	SPAN S100	SPAN S101	SPAN S100	SPAN S117	SPAN 101	SPAN 101	SPAN 101	SPAN S111	SP 101	SPAN 101	SPAN 101
38 Introduction to Speech 3	SPCH 143	CMLC C121	SPCH#1XX	SPCH #1XX	SPCH S121	SPCH #1XX	SPCH #1XX	COMM R1XX	COM 114	COM 114	COM 114	COM 114	COMM 210	COMM 101	SPCH 101
3 Fundamentals of Acting "NE"=Nδ Equ	THEA 100 i√ZIJEĀϹ∯C″=N	3 THEA 100 THIR T210 THIR T120 THIR T120 THIR T130 THIR T130 THIR T130 THIR T210 THIR	THTR T120 =UNURRIBUREd or	THTR #1XX GeHUB/1Efective; 1	THTR T100 DEPTRUARISI"=DU	THTR T120 9pahmentay Elecu	THTR T105 tive;HFRXX ^{40,} #2X	THTR T210 x", 930, 12300, 20	тнтк 201 00-,308-1639 г. Dep	THTR 138 vaPHIBREN'Ellectiv	THTR 201 e; "ESTAIR" 3Condi	THTR 138	THEAT 232 artmEhFAT REGiew.	THTR 174 THTR 150	THTR 121 THTR 231

Dec. 21, 2004

Most Frequently Taken Courses: Transfer Equivalencies at Universities for VU Courses

SECTION SIX

INTERACTIVE, STUDENT-ACCESSIBLE STATEWIDE WEB SITE AND SUPPORTING INFRASTRUCTURE

The Statewide Transfer and Articulation Committee (STAC) and the Systems Development Committee have jointly authored a proposal to fund a statewide transfer web site and supporting infrastructure (see Appendix G). STAC and the Systems Development Committee recommend that the proposal for the web site and supporting infrastructure be included in the Commission's 2005-07 Biennial Budget recommendation and be the basis for seeking financial support from private sources.

The web site itself would allow students to create accounts on it, enter and store data on college coursework they have already taken or plan to take, and immediately receive information about how their coursework would transfer and apply toward meeting the requirements of specific baccalaureate majors at specific participating campuses. The infrastructure supporting the web site — embodied in a small Transfer Indiana Central Office that would be hosted and staffed by Ball State University – would keep the system running by updating software, providing assistance to campus transfer offices, and insuring that information about degree requirements and course equivalencies is kept current.

Since transfer is ultimately about how each of thousands of courses applies to each of hundreds of undergraduate degrees, STAC has concluded that establishing a statewide transfer web site and supporting infrastructure is essential to disseminating effectively to students the vast and growing amount of transfer information. STAC and the Systems Development Committee have recommended using CAS (Course Applicability System) software developed by Miami University of Oxford, Ohio to build the web site. Statewide transfer websites using CAS have been implemented in eight states, including Ohio, Illinois, Kentucky, and Wisconsin. Five other states, including Minnesota and Missouri, are in the process of implementing transfer web sites using CAS.

SECTION SEVEN

PROPOSED WORKSCOPE FOR 2004-2005

- 1. Work toward funding and implementing a statewide transfer web site and supporting infrastructure.
- 2. Update and expand the TINgrids for Ivy Tech and VU general education courses.
- 3. Systematically expand articulation agreements for the five disciplines (Business Administration, Computer Information Systems, Early Childhood Education, Electronics Technology, and Nursing).
- 4. Complete the work of three existing discipline sub-committees:
 - Early Childhood Education
 - Electronics Technology
 - Nursing
- 5. Begin work of three new discipline sub-committees:
 - Automated Manufacturing
 - Design Technology (CAD)
 - Visual Communications
- 6. Host the Third Biennial Conference on Articulation and Transfer on July 17-19, 2005 at the University Place Conference Center on the IUPUI campus.
- 7. Compile and analyze institutional transfer policies for the public institutions, including dual credit courses.

APPENDICES

APPENDIX A

CHRONOLOGY OF RECENT TRANSFER-RELATED ACTIVITIES IN INDIANA

November 1987

CHE approves, on a permanent basis, the first four Associate of Science or transfer-oriented degree programs (in Nursing) for Indiana Vocational Technical College (IVTC, now Ivy Tech State College)

The institutions and the CHE agree on a *Suggested Framework* for Cooperative Improvement for Two-Year Program Opportunities, which calls for the institutions to work cooperatively to develop "a limited number of IVTC associate degree programs designed to articulate with related baccalaureate degree programs"

November 1988

Indiana Legislative Services Agency issues *Final Report of the Interim Study Committee on Post-High School Students*, which includes a recommendation that "urges IVTC and Indiana's colleges and universities to work to resolve the transferability issue, so as to avoid intervention by the General Assembly"

January 1989

General Assembly passes Senate Concurrent Resolution 18, "urging all state universities and Indiana Vocational Technical College to enter into articulation agreements to facilitate the transfer of credits from courses successfully completed by students enrolled in Indiana Vocational Technical College's associate of science degree programs"

January 1990

In response to the November 1988 Final Report of the Interim Study Committee, CHE completes A Study of the Transfer of Credit by IVTC Students to Public Institutions in Indiana, which concludes that "officially, most public institutions in Indiana do not transfer IVTC credits; the only campuses to do so are the University of Southern Indiana and IU-East." A transcript analysis of a random sample of 338 out of 2,807 IVTC students who continued study at four-year institutions showed that none of 338 students transferred any IVTC credit to a public institution in Indiana

February 1990

IUPUI and Ivy Tech-Indianapolis launch the *Passport* program, which facilitates development of course transfer and program articulation agreements, refers underprepared IUPUI applicants to Ivy Tech for remedial instruction and introductory general education courses, and coordinates academic advising and other student services between the two campuses

July 1991 Ivy Tech begins a comprehensive review of its 39 general

education courses, which includes hiring two consultants, who

would be selected from two public, four-year Indiana institutions, to review the syllabus of each course

February 1992 The General Assembly passes P.L. 19-1992, which mandates

that 30 semester hours of "comparable general education courses" must "transfer ... among the various state educational

institutions."

February 1994 CHE makes its first progress report on implementing P.L. 19-

1992

February 1995 CHE makes its second progress report on implementing P.L. 19-

1992

May and August 1995 CHE reports on the extent of articulation agreements between

Indiana Vocational Technical College (now Ivy Tech) and four-

year institutions

April 1996 CHE makes its third progress report on implementing P.L. 19-

1992 and includes information on articulation agreements

between Ivy Tech and four-year institutions

February 1997 Indiana State seeks and receives authorization from CHE to

deliver baccalaureate completion programs via distance education, now marketed as *DegreeLink*, which are designed to articulate fully with Ivy Tech, and later Vincennes, associate

degree programs

March and September 1997 CHE makes its fourth progress report on implementing P.L. 19-

1992 and includes information on articulation agreements

between Ivy Tech and four-year institutions

April 1998 Ball State University's ACTS (Automated Course Transfer

System) becomes the first fully interactive system for automating

the evaluation of transfer credit on the World Wide Web

September 1998 Ball State pilots the CONNECT program with Ivy Tech State

College and Vincennes University, guaranteeing students admission to Ball State after they complete a minimum of 24

semester hours of transferable coursework

January 1999 Governor O'Bannon announces the partnership between Ivy

Tech State College and Vincennes University, which will become known as the Community College of Indiana

April 1999 The General Assembly creates the community college

partnership between Ivy Tech and Vincennes in statute

April 2000 CHE announces its *Transfer Indiana* initiative, which creates the

Statewide Transfer and Articulation Committee (STAC) and the

Web Site Development Committee

May 2000 First meeting of the Web Site Development Committee

June 2000 First meeting of STAC

November 2000 CHE approves budget request to the Governor and the General

Assembly for the 2001-2003 Biennium, which includes

requested funding for a student-accessible, interactive statewide

transfer web site

September 2001 Articulation agreements concluded with all public four-year

campuses for all eight concentrations of the Vincennes

University A.A./A.S. degrees delivered to CCI sites, becoming the first time in the state's history that statewide articulation agreements were concluded for an associate degree program with

every public university campus

March 2002 STAC completes the TINgrid, which identifies transfer

equivalencies for the 40 most frequently taken courses in Fall 1999; the effort entails over 11,000 decisions regarding transfer

equivalencies among 16 pubic campuses/institutions

May 2002 CHE approves Principles Guiding Statewide Transfer and

Articulation in Indiana, which was developed through STAC

April 2003 The General Assembly passes HB 1209 (P.L. 24-2003), which,

among other things, calls for the CHE to make a progress report

on transfer and articulation by August 30 of each year

September 2003 STAC submits its first progress report in accordance with HB

1209

August 2004 STAC and the Systems Development Committee jointly propose

to the CHE that funding for a statewide transfer web site and supporting infrastructure be included in the Commission's

Budget Recommendation for 2005-2007 Biennium

September 2004 CHE reviews a draft progress report from STAC

December 2004 STAC submits its second progress report in accordance with HB

1209 to the General Assembly

APPENDIX B

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APPENDIX C

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APPENDIX D

PRINCIPLES GUIDING TRANSFER AND ARTICULATION IN INDIANA

At its August 30, 2001 meeting, STAC met with a consultant retained by the Commission for Higher Education, Dr. Jan Ignash, who coordinates the doctoral program in higher education at the University of South Florida and is nationally recognized for her work on statewide transfer practices and policies. At that meeting, Dr. Ignash presented a detailed report on policies in four states that have good transfer systems: Illinois, Maryland, Missouri, and Ohio. As a part of her report, Dr. Ignash extracted a set of principles from these four states for Indiana to consider in developing a set of principles for use here. In all four states studied, as well as in other states with highly regarded transfer systems, an important element of success was clear state policy on transfer and articulation.

Based in part on the work just cited, a set of principles was drafted and discussed by STAC at its October 30, 2001 meeting. In the ensuing months, additional drafts of the *Principles Guiding Statewide Transfer and Articulation* were extensively discussed by STAC, and STAC members were encouraged to distribute the drafts as widely as possible on all campuses. At its April 26, 2002 meeting, STAC agreed that the *Principles* were sufficiently developed to go to the Commission for action. However, the Committee stressed that since this was the first time that Indiana had put in place a comprehensive statewide policy on transfer and articulation, it would be important to review the *Principles* in a year to see if any changes were needed.

At its May 10, 2002 meeting, the Commission approved the *Principles Guiding Statewide Transfer and Articulation in Indiana* (see following two pages) and requested STAC to review these policies in one year and report back to the Commission to determine if any modifications were needed. The Commission requested that the results of this review be included in STAC's annual progress report. At this point, STAC concludes that there is no reason to modify the *Principles* that were adopted last year.

Several of the principles call for specific actions to be taken. For example, principle #12, "Responsiveness to Student Problems," calls for transfer coordinators to be identified on each campus. All of the public campuses have now supplied contact information for a transfer coordinator and/or transfer office, and most of the independent campuses have done so as well (see Appendix E). This information is now available on the Commission for Higher Education's web site (http://www.che.state.in.us/AcademicAffairs/TransferContacts.htm).

Another principle – #9, "Wide Communication" – calls for program articulation agreements and course-to-course transfer equivalencies to be "communicated in an easily understood fashion and format to a wide range of audiences ..." Consistent with this principle, a list of degree program articulation agreements between Ivy Tech State College and Vincennes University and the four-year campuses will soon be available on the Commission's web site.

Finally, principle #8, "Constructive Evaluation," describes the essence of a system to track transfer students and monitor their success in making academic progress and completing their degrees. The Commission staff has identified students who began as first-time students in Fall 1999 at either Ivy Tech or Vincennes and transferred to a public university between FY2000-FY2002. The intention is to share this information with the institutions in order to begin full implementation of this tracking system.

Principles Guiding Statewide Transfer and Articulation* in Indiana

May 2, 2002

- 1. **Faculty Primacy**. Faculty members from both two- and four-year institutions have primary responsibility for developing and maintaining statewide articulation agreements and agreements on course-to-course transfer equivalencies.
- 2. **Equal Partners**. While recognizing that degree-granting authority remains entirely within the board of trustees of each institution, associate and baccalaureate degree-granting institutions are equal partners in providing the first two years of education for students who pursue baccalaureate degrees, and should collaboratively promote best practices in the delivery of general education curricula.
- 3. **Collective Responsibility**. All institutions and campuses share a responsibility for enhancing statewide transfer and articulation.
- 4. **Comparable Treatment of Students**. Once admitted to the institution and degree program, transfer students should be treated comparably to "native" students by the receiving institution.
- 5. **Course-to-Course Transfer**. Statewide articulation agreements should be formulated as much as possible on course-to-course transfer equivalencies in order to accommodate students who transfer prior to completing their associate's degree. Course-to-course equivalencies should be determined by examining course syllabi and other material, such as course and student learning objectives.
- 6. **Articulation for Majors**. To the fullest extent possible, articulation agreements should be developed for specific program majors in all liberal arts, pre-professional, professional, and occupational fields, with priority given to those majors that enroll large numbers of students.
- 7. **Inclusion of Independents**. Independent institutions should be encouraged to participate in statewide articulation agreements.
- 8. **Constructive Evaluation**. A statewide evaluation system should monitor the progress and degree completion of transfer students, the results of which should be examined to improve statewide transfer and articulation. Such a system should utilize Student Information System (SIS) data and be supplemented with additional institutional data, which should be analyzed through a coordinated, statewide effort. Participating institutions should develop procedures to monitor the progress and degree completion of transfer students, and the results should be shared and examined to improve statewide transfer.

- Wide Communication. Articulation agreements and course-to-course transfer
 equivalencies should be communicated in an easily understood fashion and format to a
 wide range of audiences, including students, faculty, counselors, advisors, and
 admissions officers.
- 10. **Currency**. Statewide articulation and course-to-course transfer equivalencies must be updated on a frequent and regular basis.
- 11. **Multi-Directional Transfer**. As appropriate, these principles, including the need for statewide course-to-course transfer equivalencies, should apply to all transfer directions, including "lateral" transfers (four-year-to-four-year and two-year-to-two-year institutions), "reverse" transfers (four-year-to-two-year institutions), and "swirling" transfers (students who transfer among several institutions or who enroll simultaneously at two or more institutions).
- 12. **Responsiveness to Student Problems**. Processes should be developed by and among institutions to address student-specific, transfer-related complaints and problems. Transfer coordinators should be identified at each campus and recurring, persistent problems of significance should be brought to the attention of STAC.
- 13. **Appropriate Timing of Transfer**. Students should be advised that the timing of transfer is important and the optimal time for transfer may vary depending upon circumstances**.

- * As used in this document, the term articulation refers to an agreement, which is typically worked out on a course-to-course basis, by which a student who completes a two-year degree can apply all or almost all of the associate degree coursework toward meeting the requirements of a related baccalaureate degree, thus enabling the student to complete the four-year degree with two additional years of full-time study.
- ** For some students, it may be appropriate to transfer from a two-year institution to a four-year institution as soon as possible, whereas it may be appropriate for other students to transfer after earning the associate degree. For students with significant academic deficiencies, it may be optimal to complete their remediation at the Community College of Indiana along with at least some general education courses prior to transferring.

These principles are in part based on:

Jan M. Ignash and Barbara Townsend, "Statewide Transfer and Articulation Policies: Current Practices and Emerging Issues," <u>Community Colleges: Policy in the Future Context</u> (Westport, Conn.: Ablex Publishing, 2001); and Jan M. Ignash, "Transfer and Articulation in Illinois, Maryland, Missouri, and Ohio: Implications for Indiana," August 2001.

APPENDIX E

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APPENDIX F

Indiana University Agenda for Developing Statewide Transfer and Articulation Agreements with Ivy Tech State College

This document sets out systematic processes for developing more comprehensive statewide transfer and articulation agreements between Indiana University and Ivy Tech State College. These processes build on the local and statewide resources of the two schools, and particularly on the transfer and articulation arrangements already made between them as systems and between their local campuses. The outcome of these processes will be to maximize the inventory of courses that students can **transfer** from one school to the other and the number of **articulations** of two-year degrees offered by Ivy Tech with corresponding four-year degrees offered by Indiana University.

The basic principle operating in this effort is that articulation agreements are constructed on course-to-course transfer equivalencies. Besides enhancing the mutually collaborative efforts of the two schools for development and improvement of their curricula, this principle assures that students are able to transfer courses and credit hours whether or not they articulate completed degrees.

The first steps toward the goal of this initiative will focus on clarifying and expanding the list of transferable courses:

- 1. Each IU campus will review the Ivy Tech 2004-05 master course list (provided by Ivy Tech through its system website) and identify the course transfer status of each Ivy Tech course on that campus. **Deadline for this step: January 2005.**
- 2. IU is already committed to the fullest possible transferability of the core of the undergraduate general-education transfer array—the 40 "most frequently taken courses" reflected in the TINgrid tables developed by the Statewide Transfer and Articulation Committee. It is extending its systemwide examination to all Ivy Tech courses currently accepted in transfer by any IU campus. All the IU campuses will be provided by the Office of the Vice President of Academic Affairs with lists of these courses, together with information about the IU courses to which those transferred courses are treated as equivalent. The individual campuses will be asked to examine Ivy Tech courses that other IU campuses accept, and to create transfer equations for those courses if they can, with particular emphasis on equations consistent with those of the other campuses. When specific course equivalencies are not possible because of the special nature of a campuses offerings, campuses will be asked to agree to offer undistributed (that is, disciplinary but not course-specific) credit. As an aid to this review step, campuses will also be provided with the Ivy Tech statewide course listing and the URL of the Ivy Tech master course catalog. Deadline for this step: February 2005.

With these steps completed, the development of statewide articulation agreements between the two-year Ivy Tech degrees (A.A. and A.S.) and four-year IU degrees (A.B. and B.S.) can begin. This phase has four parts:

- 1. In 2001 IU and Vincennes University agreed on campus-to-campus articulation agreements for 15 different undergraduate A.A./A.S. to A.B./B.S. degrees. With the dissolution of the Vincennes/Ivy Tech partnership associated with the Community Colleges of Indiana initiative, Ivy Tech has recently been approved to offer courses comparable to the undergraduate general-education courses involved in these agreements. The Office of the Vice President for Academic Affairs will provide each IU campus with a restatement of the Vincennes equations in terms of Ivy Tech courses, and each campus will be asked to review and formally adopt articulation agreements with the Ivy Tech system for this same array of degrees. **Deadline for this step: Spring 2005.**
- 2. Specific IU campuses have entered into articulation agreements with one or more Ivy Tech campuses or with an Ivy Tech region. Each IU campus will be asked to identify its agreements, to review the contents of agreements against the current Ivy Tech master course catalog, and to prepare updated articulation agreements not simply with the original Ivy Tech unit(s) but with the Ivy Tech system as a whole again on the basis of the consistency of the Ivy Tech course list systemwide. These renewed agreements will be forwarded to the Ivy Tech central administration for review. When all details are in order, these agreements between the Ivy Tech statewide system and IU will be formally adopted. Work on this step will begin: Spring 2005.
- 3. STAC has facilitated the creation of disciplinary subcommittees of faculty and administrators to address transfer and articulation issues associated with academic areas shared by the two-year and four-year schools. Working through these subcommittees as well as directly with Ivy Tech, IU will promptly complete articulation agreements in the relevant disciplinary areas currently under discussion—Business Administration, Criminal Justice, Early Childhood Education, and Nursing-- and will also initiate development of statewide articulation agreements in additional areas not at present on the STAC agenda. **Deadline for STAC-related articulations: May 2005.**
- 4. The chief academic officers of IU and Ivy Tech will cooperate in the articulation processes already outlined here, and they will review their academic offerings to identify and formalize additional, appropriate A.A./A.S. to A.B./B.S. articulations. This step will be open and continuous. ICHE has recently stipulated that any new A.A./A.S. degrees brought to it by Ivy Tech must include articulations with four-year degree programs. Cooperation between IU and Ivy Tech will thus particularly focus on the development of these articulations.

mab/djn

APPENDIX G

PROPOSAL FOR FUNDING A STATEWIDE TRANSFER WEB SITE AND SUPPORTING INFRASTRUCTRE

August 5, 2004

Developed by the Statewide Transfer and Articulation Committee (STAC) and the Systems Development Committee

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INTRODUCTION

Students in high numbers are transferring credits between and among colleges. A national study published by the U.S. Department of Education in January 2004 reports that:

- 56.6% of college students took courses from two or more colleges (35.1% from two colleges, 21.5% from three or more)¹.
- 59.4% of baccalaureate recipients took courses from at least one college other than the one from which they earned their degree².

For a number of reasons, it appears that transferring credits among Indiana institutions will become even more prevalent:

- Increasing numbers of students prefer to take courses on-line (in 2001-02, IHETS reports 38,283 enrollments for courses delivered via the Internet through the Indiana College Network), for the purpose of transfer back to the student's home institution.
- Because four-year tuition is rising faster than family income (e.g. tuition and fees as a percent of median family income at IUPUI went from 6.9% in 1999-00 to 9.4% in 2004-05, while during this same five-year period tuition and fees at Ivy Tech went from 3.7% to 3.9%³), more students are seeking lower-cost alternatives for at least some of their coursework.
- Due to work and family commitments, students are pursuing alternative courses (to those offered at their own institution) offered at more convenient hours. (Annual headcount enrollment Indiana Wesleyan University, which has extensive coursework available during evenings and on weekends, grew from 7,361 in 1993-94 to 18,355 in 2002-03⁴).
- The two-year sector has been growing faster than the four-year sector, so more students will be seeking transfer opportunities into baccalaureate programs.

In Indiana, this last point is especially true. Our new comprehensive community college initiative has brought large numbers of new students into the system (21,639 more students between Fall 1999, the year before the initiative was launched, and Fall 2003⁵). States surrounding Indiana have already moved their educational systems toward structures that expect transfer as a normal course of a student's education. Indiana is now moving in that direction, , which would allow, for example, a student to start at a community college campus and then transfer to a four-year institution, where a student might be able to complete a baccalaureate degree with the equivalent of two additional years of full-time study.

It should be noted that the goal here is not just transfer, but *successful* transfer. A student's previous collegiate-level work should be appropriately recognized in such a way that the student maximizes transfer credits and has the right foundation to complete more advanced coursework with good grades and without having to repeat material already taken. For this to work, a number of factors are required.

First, the initial transfer assessment must be undertaken with the involvement of faculty and with sufficient communication between receiving and sending institutions. Second, the articulation of courses and programs must be implemented so that they apply to all similar cases equally and maintained so that changes in curriculum or degree requirements are taken into account and timely adaptations are made. Third, students need to be able to access alternative articulation and transfer opportunities available to them over as wide a range of institutions and subjects as possible. Lastly, Indiana institutions need a

¹Clifford Adelman, *Principal Indicators of Student Academic Histories in Postsecondary Education, 1972-2000* Washington, D.C.: U.S. Department of Education, Institute of Educational Science, January 2004, p. 45. ² *Ibid*, p.45.

³ Indiana Commission for Higher Education, June 2004 meeting agenda, p. 116

⁴ Indiana Commission for Higher Education, SIS data

⁵ Indiana Commission for Higher Education, *Community College of Indiana: 2003 Progress Report*, November 11,

systematic and cooperative way of monitoring student transfer patterns and subsequent success. Ideally, such a system would also include diagnostic tools to ensure that transfers will result in the best educational experience for the student.

Although Indiana has historically been seen as unfriendly to transfer (in a national survey done in 1999, Ignash and Townsend characterized Indiana's statewide articulation agreements as "very weak", the state has made enormous progress in recent years, for example:

- The *Transfer Indiana* initiative was launched in 2000, which resulted in the creation of the Statewide Transfer and Articulation Committee (STAC) and the Systems Development Committee (SDC), which was previously known as the Web Site Development Committee.
- Following creation of the community college system, STAC facilitated articulation of Vincennes University liberal arts degrees from all CCI sites to all public campuses (the first time such a comprehensive statewide articulation had ever been developed in Indiana).
- Transfer equivalencies were developed for the 40 most frequently taken courses.
- Subcommittees have been established in six disciplines to enhance program articulations.
- STAC drafted, the institutions endorsed, and the ICHE adopted as state policy a set of principles to guide transfer in Indiana.
- SDC analyzed transfer credit software systems, and selected the Miami University Course Applicability System (CAS) as the most appropriate software for the Indiana Transfer Initiative.
- SDC selected Ball State University as the host institution for the development and maintenance of the TransferIN.net initiative, because of the experience and expertise the institution earned in developing and deploying its Automated Course Transfer System (ACTS), which was a proto-type for the CAS software design.

This progress will continue. The General Assembly passed legislation during the 2003 session that calls for public institutions to increase the number of courses that transfer and degree programs that articulate. By statute, the ICHE is now required to file annual progress reports on STAC and to document that transfer opportunities are increasing.

In one sense, Indiana has now become the victim of its growing success. All of the progress made in recent years has generated enormous amounts of information, which must be communicated to students clearly and effectively for it to be of any use. Ultimately, students need to know how a course they plan to take will count toward fulfilling the specific degree requirements for their major at a targeted institution. Given the tens of thousands of courses and thousands of degree programs they collectively offer, this cannot be done for all colleges and universities in Indiana without degree audit software, a statewide transfer system and corresponding web site, and a supporting administrative structure. Such a system is required if Indiana is to achieve its goal and expectation of creating a modern, student-friendly statewide system of transfer. Other states with good transfer systems have already done this, including three of our four surrounding states (Ohio, Illinois, and Kentucky). Proven software (CAS) is available, which will enable Indiana to implement a statewide transfer system in relatively short order, if funding is made available.

The pages that follow will describe the transfer system being proposed and the system output from a student's perspective, the benefits of implementing such a system, system architecture, and budget summary. Appendices include letters of support, a map of other states that have established similar transfer systems, and a detailed budget.

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⁶ Jan M. Ignash and Barbara K. Townsend, "Statewide Transfer and Articulation Policies: Current Practices and Emerging Issues" in <u>Community Colleges: Policy in the Future Context</u>, ed. Barbara K. Townsend and Susan B. Twombly (Westport Conn.: Ablex Publishing, 2001), p. 188.

SYSTEM OUTPUT

The Transfer Indiana Project (*TransferIN*) will be a system designed to accomplish the automated evaluation of transfer credits for students speculating about a move from one institution of higher education to another. The system will tell these potential transfer students which of their previous credit experiences are acceptable, and how applicable they are toward a specific degree or program at any or all of the participating institutions. The information will be delivered to students via a simple and elegant web format, and the identity of the *TransferIN* system will primarily be conceived of, by the target users, as a website. Behind the website will exist a sophisticated computing environment tended by a central staff and nourished by data from all involved institutions.

The *TransferIN* system will provide varying service to users, according to the needs of each. Students, the primary group of users targeted by the system, will be required to create an account (username and password being the key elements) on their first visit to the system, and will likely also enter their credit experiences from one or more institutions at that time. Depending upon each institution's level of participation, this information may be available for automatic retrieval, which would alleviate the need to enter the data by hand and increase accuracy. Once generated, this data may be thought of as the student's "course bank," and it will be retained for up to a year after the last use of the account.

Students will be able to access general course and degree/program information prior to creating a course bank. Once the bank is established, however, individually tailored reports will be available. Students will be able to obtain a general statement of how their courses will transfer to any of the participating institutions. More significantly, users may obtain the same information within the framework of a specific degree or program by requesting a planning guide. The planning guide produced by *TransferIN* will be identical to the degree audit that a student native to the selected institution would receive, assuming an identical scenario of past credits, major selection, and so forth. In the process of requesting credit evaluation via a planning guide, the system will require users to select a degree program and/or major (or perhaps indicate "undecided" or "undeclared"); this will ensure the accuracy and relevancy of the transfer information returned to the user

At the time the guide is requested, the student may set an institution of reference and generate a "reference audit." This report will not only show how courses already taken will transfer, but will detail courses that may be taken for productive transfer in future semesters. This will allow a student considering transfer to remain at his or her current institution longer without losing the ability to generate credits useful toward graduation at his or her future institution of choice. The report will also allow a student who wants to complete extra coursework over the summer at a different institution than his institution of primary enrollment to do so productively.

Faculty, staff, and administrators will find additional features of the system useful. In particular such individuals may relish the possibility of obtaining data on all the transfer equivalencies on the system that represent another college accepting their institution and department's credits, or of obtaining a report that details all the sources a student may employ for generating credit at another institution for productive transfer to the faculty, staff, or administrator user's school. Such reports will facilitate the general awareness and upkeep of transfer rules by each responsible department and person within participating campuses.

It must be noted that the *TransferIN* system's selected computer application (CAS) is highly customizable and allows participants to structure the delivery of data to target users according to the institutions' desires or needs. This empowers participants to create any messages, disclaimers, explanations, and tutorials that are required for the accurate understanding of the system's output. Therefore, while users will employ the same strategies and skills in obtaining information from the TransferIN system, the information they get will not only be fashioned around the course data and program selection entered, but will reflect the unique characteristics of the institution which the users reference.

All of this service will not come at the price of promptness. The system's response time for generating even the most complex reports will be measured in seconds (less than one minute). This estimation is based on the efficiency of nearly identical systems in neighboring states and on BSU's ACTS system, which was the prototype for CAS.

To visualize the system in operation, consider a hypothetical student who has taken coursework at a Community College of Indiana campus. "Margaret" has attended Ivy Tech at the Muncie campus and has taken coursework from both Ivy Tech's original curriculum and from CCI selections. She visits the TransferIN.net site on the World Wide Web and is asked to create an account. She enters a username and password of her own choosing, but feels uncomfortable about providing her address just yet, so she leaves that portion blank. Margaret then proceeds to the "Your Courses" tab and notices that she can simply click on a button that will retrieve her coursework, and she does so. Several seconds later, all the course information for the courses she took at Ivy Tech pop into the fields on the page. She checks them over to make sure they appear to be accurate, and then goes to the "Planning Guides."

In the Planning Guides area, Margaret is asked to select the state and institution that she plans to attend in the future. Margaret picks IUPUI. She then chooses a degree program/major from that school via an interactive menu. Two more steps are required of Margaret on the next web page. She must choose a catalog year (the year she plans to begin enrollment at the other university) and she must select either a regular planning guide, or a cross-referenced one. Reading the descriptions of each, she chooses the latter because she wants to know about other courses she could take at Ivy Tech before transferring. Before allowing her to submit the request for a planning guide, the system asks her whether or not she has earned an Associates Degree at Ivy Tech, as this may qualify her for program-to-program articulations. Finally, Margaret submits the request and waits a few seconds for the report to be generated.

When Margaret brings up the report on-screen, she is amazed to see not only an outline of all the courses she will have to take at IUPUI to finish a degree in Nursing, but where she has already met a requirement through transfer work the comparable IUPUI credit is showing as complete. Further, where there are courses listed that she still must take, occasionally she sees an indication of a specific course at Ivy Tech that she could take and transfer in place of the IUPUI course. Margaret decides to print out the report and use it in her next semester of registration at Ivy Tech.

This is a streamlined visualization, hitting only the most basic elements of the CAS tool and considering only the perspective of a student seeking to change schools. Space permitting, it would be helpful, for instance, to observe a hypothetical faculty advisor from Ball State pull up a report on all the courses that transfer to his department, Anthropology, from the main campus of Purdue University. It would also be beneficial to visualize a student looking at transferable courses from the University of Southern Indiana that he could take while at home on summer break from Indiana State University.

SYSTEM BENEFITS

Perhaps the most obvious benefit to be derived from the *TransferIN* project is the ready access to course transfer information that the system will provide to students, giving them comprehensive access to Indiana's higher-education resources. As noted in the introduction, more than 56% of college students take courses from more than one institution. If/as Indiana's student population approaches this statistic, the significance of the burden created for Indiana's colleges by this lack of a centrally maintained, automated course and program audit system will become more apparent and even more expensive to address.

Currently, there is no one course or program audit system – whether for the evaluation of transferred courses or the performance of graduation audits – used by Indiana's public colleges and universities. The schools that do have automated systems use different programs, and many of the state's private colleges have no automated system at all. The absence of a single coherent system deprives students of vital information they need to track their progress toward graduation. Prospective transfer students have difficulty finding courses and degree offerings compatible to their needs because of monotonous and possibly error-filled resubmission of course data to each institution. School representatives who evaluate coursework for transfer, including registrars, program faculty, and program academic advisors, among others, do not have accurate information available to them.

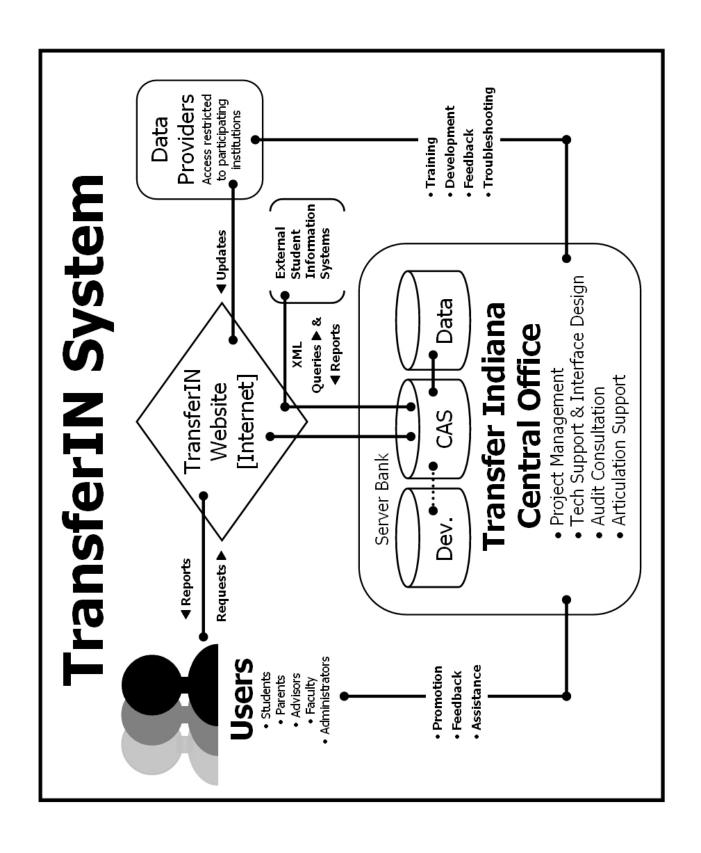
The benefits accruing from the implementation of a universally used, statewide automated course transfer and degree audit system will include:

- The provision of more accurate and consistent curricular information both to native students who
 need to track their progress toward degree completion and to prospective transfer students who
 wish to assure that their lower division coursework matches the expectations of their intended
 transfer institution.
- The opportunity for prospective transfer students to explore and compare possible transfer institutions in terms of their already established coursework and program interests.
- A reduction in the time spent by program faculty, academic advisors, and program administrators (chairs, deans) in repetitively evaluating courses and transfer programs for transfer students.
- The provision of accurate information to academic advisors at all levels so that they might better advise students about program and course transfer, and other more substantive academic matters (e.g., career information, post-baccalaureate, graduate study, etc.).
- Statewide availability of a comprehensive education resource identifying opportunities for all citizens, a resource particularly helpful to those underrepresented groups—among them ethnic minorities and handicapped persons—presently deprived of access to that information.

The logical consequence of accruing these benefits is an increased retention of students in-state, increased completion of degrees, and the addition of greater numbers of trained, educated citizens to the Indiana workforce.

SYSTEM DESIGN

TransferIN will be presented to the public via a comprehensive website, but the system itself is much more extensive; the website will be merely a conduit through which data passes and a means of formatting the data in order to improve the user's comprehension. The diagram below (on the following page) models the transfer of information between the basic components of the proposed system: human, hardware, and software. It will prove useful in understanding what physical elements are required to make *TransferIN* a functioning reality.



The core system will be comprised of three computer servers. [Servers are powerful computers designed to handle demands from multiple users simultaneously.] The servers are represented by "can" shapes in the diagram. One of the three, the "data server," will hold all the transfer equivalency data supplied by each participating institution. This data will encompass catalog information for each course taught by the participating institutions, degree and program plans, the rules that govern how credit is matched and awarded to courses received in transfer, and ancillary information such as text messages and graphics unique to each institution.

The second server is dedicated to running the program itself, CAS. The CAS (Course Applicability System) application supplies the logic and format for the articulation rules, and directs all the traffic, uploads and queries, moving through the servers. The application server will require two CPU's (Central Processing Units) in order to efficiently handle the expected amount of traffic by target users; each CPU will necessitate a license for the Microsoft SQL ("sequel") Server application that supplies the platform operating system for the server.

A third "Test" server will be devoted to the development of the project and supplied by the Transfer Indiana Central Office (TICO) host institution, Ball State University. It will be used for testing and troubleshooting new versions of the CAS application. This will help prevent downtime on the two main servers and an uninterrupted service to the users.

All three servers will be housed at the TICO host site, Ball State University. Therefore, all data will be uploaded to the TICO site from participating institutions and all user enquiries will be directed to the TICO servers. This ensures that the system will not unnecessarily drain each institution's own system of computers. It will also facilitate uniformity in the process and aid in the collection of usage data.

The flow of information through the system architecture may be described as follows. Each participating institution supplies its course inventory data (the catalog information on its courses) and articulation rules to the data server. This is accomplished by placing the data into flat files and uploading the files to the server via the Internet/*TransferIN* website, which is represented by a diamond shape in the diagram. [Flat files are basic spreadsheet or database files that have been compressed into plain text by delimiting (separating) each element of data with a signature character, usually tabs, semi-colons, or commas.] Special pages in the website are designed to facilitate this upload and institutions will have regular access so that they may update the files weekly, if they desire. Very little technical expertise is required for this process, though it does necessitate that institutions keep an electronic version of their catalog and transfer rules. Nearly all the participating institutions, obviously, already follow this practice.

Once an institution has the course inventory and articulation rules loaded onto the data server, the data is available to all target users. Users (students, advisors, faculty, administrators, and more) visit the website, create an account on their first visit or login on subsequent visits, and enter a list of courses for speculation. Alternately, as mentioned in the System Output section above, an XML process can be utilized to automatically pull this course data for a student from the institutional databases of one or more schools in real time. [XML is a programming language developed for use in Internet processes that require data to be moved between the web-based user and processing sites; i.e. a credit card purchase or application submission.] This process is preferable, and makes the data entry less susceptible to error. The XML processes can be built by each institution, assuming it has the resources and expertise, or they purchased from a third-party. The purchase of XML processes is reflected in the budget section below.

The data in each user account is stored in-system, on the TICO data server, for a period of one year from the time the user last accessed the system. After an account has been inactive for one year, the data will be deleted to increase efficiency in the system, but can always be entered or retrieved again at a future date.

Schools using the DARS (Degree Audit and Reporting System) software, also designed by the team at Miami of Ohio, will upload their degree programs directly to the server, so that degree audits can be run directly from the machines at the *TransferIN* Central Office. [A degree audit, defined for the purpose of this document, is a student-specific plan of action for pursuing a degree or program offered by an institution. The CAS system refers to them more generally as "planning guides."] Those schools using other audit programs, such as Peoplesoft, will make use of another XML process. In this scenario, the query put to the *TransferIN* server is forwarded to the institution's own system, an audit is generated, and the completed report is delivered intact back to the server and then to the user. This ensures that the audits/planning guides displayed by the *TransferIN* site always match those a native student of the institution would receive.

Other information is available to more specialized target users. For example, departmental chairs can retrieve a list of all the articulations in the system that pertains to their subject area, by institution. This would allow a department chair to review and better update articulation rules that affect transfer students moving to his or her college and proffered degrees.

To summarize, the system architecture consists of three servers: data, application, and development. A comprehensive website facilitates the regular uploading of institutional data and handles target user queries; this further necessitates a number of hard-line connections to the Internet and a technical staff to care for the TICO site equipment.

NARRATIVE BUDGET

The itemized budget may be found in the appendices. Aside from the totals, there are six primary sections of the budget, as described below. The fiscal year amount shown for 2007 may be interpreted as also representing the continuing annual cost of supporting TICO and TransferIN, aside from assumed reasonable increases in salaries, equipment and supply costs, etc.

It should be noted that on a larger scale, the cost of the TransferIN system may be larger than the sum of the outlined budget. The proposed system assumes a current level of service to students that not all institutions have had the resources to afford and/or expertise to develop. These costs are generally incalculable until the actual work of tooling up for implementation begins, and it is clear that some institutions will not have as much work to prepare for the system as others. For these reasons, it is hoped that the incentive grants described in section five can to some extent offset the burden to individual institutions who find themselves required to develop extensive in-house procedures and technical expertise in order to compete on an even footing with other participants in the system. Obviously, the amount of work incurred in developing these procedures and expertise may also affect the timeline of the budget as indicated in the itemized budget in the appendices.

- 1. HARDWARE, SOFTWARE, and MAINTENANCE. As detailed in System Architecture and Performance, the project will require three servers, including a license for the CAS software and for the operating system software for each server. XML interface applications will additionally be purchased for those institutions not currently running the DARS degree audit software.
- **2. PERSONNEL.** TICO will require a staff of three full-time professionals, one clerical support position, and one consultant's position. All positions will fall under the leadership of a full-time central director. The CAS technician will provide regular technical service for hardware, applications, and the *TransferIN* website. The degree audit specialist/consultant will work with individual colleges, particularly Ivy Tech and Vincennes University, to aid them in developing computerized degree audit programs. The transfer articulation specialist will oversee the accumulation and maintenance of course inventory and transfer data. As a team, the office will undertake promotional and assessment tasks.

- **3. TRAINING.** The training portion of the budget assumes that a central staff member will accompany individuals from the participating institutions to workshops hosted by the DARS/CAS team at Miami University of Ohio. This will help provide uniformity in understanding among high-level users of the system. The slots supported by the budget below will rotate each year, allowing new individuals to be trained
- **4. SPACE, EQUIPMENT, SUPPLIES, and TRAVEL.** A space will need to be developed at the host site that is appropriate to the task at hand and which supports the TICO staff. The staff will need funds in order to travel to the participating institutions and provide on-site instruction and aid. Funds are also required for TICO to host regular meetings of the participating institutions and project organizers. Travel to national conferences and meetings of transfer articulation "think tank" groups is also accommodated, to some extent.
- 5. PROMOTION and DEVELOPMENT. A means by which the system will be advertised and its use encouraged, a process of assessing the system's use and target user satisfaction, and incentive grants to encourage institutional participation are all line items in this section. Incentive grants have been included based on reports from other states (specifically Illinois) regarding the need to motivate institutions not only to become stakeholders in the process, but also to accomplish tasks in a timely and thorough manner.
- **6. COMMUNITY COLLEGES.** Unlike the 4-year institutions in the state of Indiana, Ivy Tech State College and Vincennes University have not had the resources to specifically pursue the development of computerized degree audit systems. For the CCI schools to become full participants in the *TransferIN* project, and to better serve the students of these institutions, funds are needed to provide each institution with a computerized degree audit system. Computerized degree audits enable students, faculty, and administrators to quickly generate a degree or program plan that is consistent with what is stated in the institution's catalog, but also incorporates all the relevant detail from the student's own credit experiences and test/placement scores. It also provides a framework for the delivery of transfer credit evaluation information.

TOTAL BUDGET REQUEST			
Item	FY 2006	FY 2007	
1. Hardware, Software, Maintenance Subtotal	\$594,500	\$100,000	
2. Personnel Subtotal	\$349,240	\$349,240	
3. Training Subtotal	\$30,000	\$19,600	
4. Space, Equipment, Supplies, Travel Subtotal	\$112,500	\$50,000	
5. Promotion and Development Subtotal	\$170,000	\$90,000	
6a. Ivy Tech State College Subtotal	\$260,780	\$13,000	
6b. Vincennes University Subtotal	\$250,280	\$13,000	
Total Annual Budget Request	\$1,767,300	\$634,840	
Total Biennial Budget Request	\$2,402	\$2,402,140	

CONCLUSION

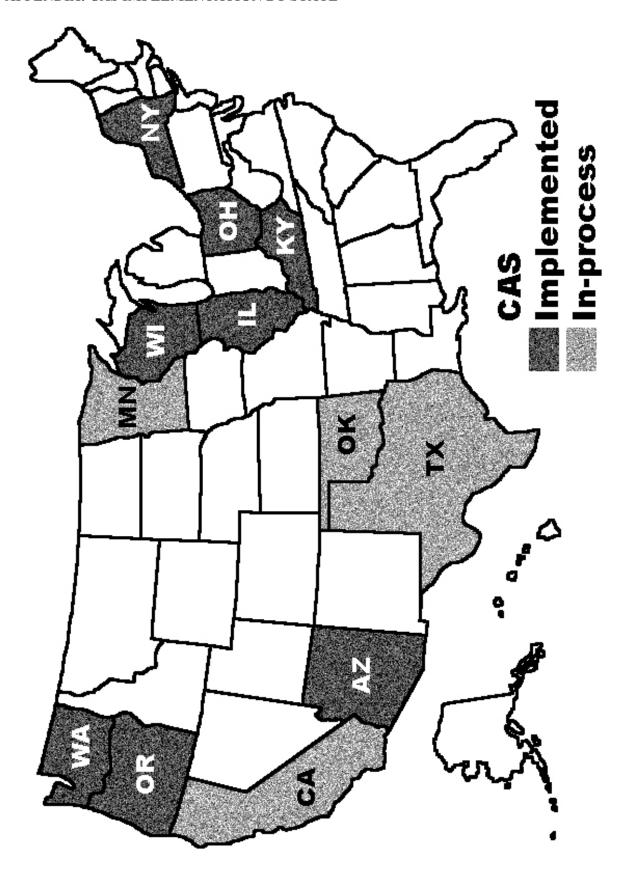
A map included in the appendices details the usage of CAS, the singular commercially-available system of automated transfer credit evaluation, on a state-by-state basis. In looking at Indiana's position on this map, it is clear that the state is surrounded by more transfer-friendly states. Like an island in the middle of a rushing stream, Indiana is in danger of losing students through intellectual erosion to its closest neighbors.

Though other states are currently ahead of Indiana in technological resources available to transfer students, this state is poised to not only redress the imbalance, but to surge ahead of at least three of its neighbors in providing cutting edge service. This is due to several important factors, including: 1) the policies and robust body of data being generated by the Statewide Transfer and Articulation Committee (STAC); 2) the selection of a proven software package, CAS, to serve as the *TransferIN* engine; and 3) the experienced personnel at Ball State University who designed and implemented ACTS (the Automated Course Transfer System), which was the prototype used in designing CAS, and who have been selected as the architects of the *TransferIN* Central Office. The knowledge and cooperative spirit embodied within STAC assure that an adequately funded *TransferIN* will quickly be able to provide benefits to transfer students within Indiana equal to that supplied by the state of Ohio to its own students, and surpass the level of benefits evidenced in Kentucky, Illinois, and Wisconsin. (Each of these states is still in the process of building the architecture, and collecting the data to populate, their transfer systems.) To delay, however, would be to insure that the lead of Indiana's neighbors increases and perhaps becomes insurmountable.

Development of the *TransferIN* system is also the next logical step in continuing the strides made by the state's community college initiative. Successful transfer is, in many cases, the culmination of a successful community college experience. When students have achieved their goals in the Community College of Indiana, they are poised to parlay their credit experiences into a baccalaureate degree at one of the state's senior institutions. Without accurate transfer information, these students may be unlikely to plan effectively or transfer successfully.

Successful transfer is not only the goal of more than half of college students nationwide, it is the right of students to seek out more economically, geographically, and programmatically advantageous means in pursuing their degrees. It is therefore the necessity of Indiana and its institutions to inform students' transfer decisions as quickly, efficiently, and accurately as possible in order to reduce waste in educational funding and ensure better academic experiences for those individuals within the care of its institutions.

APPENDIX: CAS IMPLEMENTATION BY STATE



APPENDIX: ITEMIZED BUDGET

As noted in the narrative budget section, the cost of implementation for some items may be delayed by the readiness of each institution to participate (from a process or technical standpoint) and by the ability of the TICO office to accommodate those who want to participate in a timely fashion.

1. HARDWARE, SOFTWARE, MAINTENANCE		
Item	FY 2006	FY 2007
CAS License/Maintenance (all public institutions)	\$337,000	\$55,000
Application Server (2 CPU's)	\$35,000	\$0
Application Server Maintenance	\$3,000	\$3,000
Microsoft SQL Server License (\$8,000 per CPU)	\$16,000	\$0
Database Server (with Windows OS)	\$15,000	\$3,000
Database Server Maintenance	\$3,000	\$3,000
Development Server & Maintenance (BSU in-kind contribution)	\$5,500	\$0.00
XML Interface Software Licenses/Maintenance		
IU system (\$15,000/\$3,000 per campus)	\$105,000	\$21,000
Purdue system (\$15,000/\$3,000 per campus)	\$60,000	\$12,000
USI	\$15,000	\$3,000
Hardware, Software, Maintenance Subtotal	\$594,500	\$100,000
2. PERSONNEL		
Item	FY 2006	FY 2007
State Director (salary & benefits)	\$112,200	\$112,200
CAS Technician (salary & benefits)	\$92,400	\$92,400
Degree Audit Specialist/Consultant	\$10,000	\$10,000
Transfer Articulation Specialist (salary & benefits)	\$92,400	\$92,400
Clerical Support (salary & benefits)	\$42,240	\$42,240
Personnel Subtotal	\$349,240	\$349,240
3. TRAINING		
Item	FY 2006	FY 2007
CAS User's Workshop (\$1200 per person)	\$4,800	\$4,800
Degree Audit Encoders Level 1 Workshop (\$1200 per person)	\$3,600	\$2,400
Transfer Articulation Level 1 Workshop (\$1200 per person)	\$3,600	\$2,400

XML Training/Consulting (\$2500 per consultation)	\$10,000	\$5,000
Workshop Travel	\$8,000	\$5,000
Training Subtotal	\$30,000	\$19,600
4. SPACE, EQUIPMENT, SUPPLIES, & TRAVEL		
Item	FY 2006	FY 2007
Space Renovation, Furnishings, and Maintenance	\$60,000	\$10,000
General Equipment (computers, copy machine, phone, etc.)	\$15,000	\$5,000
General Supplies	\$12,500	\$12,500
Travel (on site support, state & national meetings, etc.)	\$7,500	\$5,000
Hosting Services (meetings of participating institutions held at TICO)	\$5,000	\$5,000
Bandwidth (domain registration and Internet traffic support)	\$12,500	\$12,500
Space, Equipment, Supplies, Travel Subtotal	\$112,500	\$50,000
5. PROMOTION AND DEVELOPMENT		
Item	FY 2006	FY 2007
Promotional Program	\$35,000	\$35,000
Assessment/Evaluation (student focus groups, survey implementation, etc.)	\$15,000	\$15,000
Incentive grants (\$10,000 per campus)	\$120,000	\$40,000
Promotion and Development Subtotal	\$170,000	\$90,000
6a. IVY TECH STATE COLLEGE		
Hardware, Software, Maintenance	FY 2006	FY 2007
DARwin License/Maintenance	\$81,280	\$12,000
Application Server	\$35,000	\$0
SQL server license (standard)	\$8,000	\$0
Subtotal	\$124,280	\$12,000
Personnel		
DARS Degree Audit/Transfer Articulation encoder (salary & benefits)	\$53,500	\$0
DARS Technician (salary & benefits)	\$67,000	\$0
Subtotal	\$120,500	\$0
Training		
Encoders Level 1 & 2 Workshop	\$3,000	\$0
Transfer Articulation Level 1 & 2 Workshop	\$3,000	\$0
Subtotal	\$6,000	\$0

Equipment		
Computers, connections, etc.	\$10,000	\$1,000
Subtotal	\$10,000	\$1,000
Ivy Tech State College Total	\$260,780	\$13,000
6b. VINCENNES UNIVERSITY		
Hardware, Software, Maintenance	FY 2006	FY 2007
DARwin License/Maintenance	\$81,280	\$12,000
Application Server	\$35,000	\$0
SQL Server License	\$8,000	\$0
Subtotal	\$124,280	\$12,000
Personnel		
DARS Degree Audit/Transfer Articulation encoder (salary & benefits)	\$47,500	\$0
DARS Technician (salary & benefits)	\$62,500	\$0
Subtotal	\$110,000	\$0
Training		
Encoders Level 1 & 2 Workshop	\$3,000	\$0
Transfer Articulation Level 1 & 2 Workshop	\$3,000	\$0
Subtotal	\$6,000	\$0
Equipment		
Computers, connections, etc.	\$10,000	\$1,000
Subtotal	\$10,000	\$1,000
Vincennes University Total	\$250,280	\$13,000
TOTAL BUDGET REQUEST		
Item	FY 2006	FY 2007
1. Hardware, Software, Maintenance Subtotal	\$594,500	\$100,000
2. Personnel Subtotal	\$349,240	\$349,240
3. Training Subtotal	\$30,000	\$19,600
4. Space, Equipment, Supplies, Travel Subtotal	\$112,500	\$50,000
5. Promotion and Development Subtotal	\$170,000	\$90,000
6a. Ivy Tech State College Subtotal	\$260,780	\$13,000
6b. Vincennes University Subtotal	\$250,280	\$13,000
Total Annual Budget Request	\$1,767,300	\$634,840
Total Biennial Budget Request	\$2,402,	140

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Item	FY 2005	FY 2006
Hardware, Software, Maintenance		
CAS License/Maintenance (all institutions)	\$339,700.00	\$52,000.00
Application Server	\$35,000.00	\$0.00
Server Maintenance	\$3,000.00	\$3,000.00
Microsoft SQL Server License (2 CPU's)	\$16,000.00	\$0.00
Database Server (with Windows OS)	\$15,000.00	\$3,000.00
Database Server Maintenance	\$3,000.00	\$3,000.00
Development Server & Maintenance (BSU)	\$5,500.00	\$0.00
Database/Interface software licenses/maintenance	. ,	•
IU system	\$105,000.00	\$21,000.00
Purdue system	\$60,000.00	\$12,000.00
USI (possible)	\$15,000.00	\$3,000.00
VU	\$15,000.00	\$3,000.00
Hardware, software, maintenance subtotal	\$612,200.00	\$100,000.00
Personnel	+ ,	+,
State Director (salary & benefits)	\$112,200.00	\$112,200.00
CAS Technician (salary & benefits)	\$92,400.00	\$92,400.00
Degree Audit Specialist/Consultant	\$10,000.00	\$10,000.00
Transfer Articulation Specialist (salary & benefits)	\$92,400.00	\$92,400.00
Clerical Support (salary & benefits)	\$42,240.00	\$42,240.00
Personnel subtotal	\$349,240.00	\$349,240.00
Training	Ψ3 17,2 10.00	ψ3 17,2 10.00
CAS User's Workshop (\$1200 per person)	\$4,800.00	\$4,800.00
D. A. Encoders Level 1 Workshop (\$1200 person)	\$3,600.00	\$2,400.00
Transfer Articulation Level 1 Workshop (\$1200 person)	\$3,600.00	\$2,400.00
XML Training/Consulting (\$2500 per consultation)	\$10,000.00	\$5,000.00
Workshop Travel	\$8,000.00	\$5,000.00
Training subtotal	\$30,000.00	\$19,600.00
Physical Space, Equipment, Supplies, Travel		
Space renovation, furninshings, and maintenance	\$60,000.00	\$10,000.00
Equipment (computers, copy machine, phone, etc.)	\$15,000.00	\$5,000.00
Supplies	\$12,500.00	\$12,500.00
Travel (on site support, state & nat'l meetings, etc.)	\$7,500.00	\$5,000.00
Hosting Services (domain regis., local meetings, etc.)	\$5,000.00	\$5,000.00
Bandwidth	\$12,500.00	\$12,500.00
Space, Equipment, Supplies, Travel subtotal	\$112,500.00	\$50,000.00
Miscellaneous		
Promotional program	\$35,000.00	\$35,000.00
Assessment/Evaluation	\$15,000.00	\$15,000.00
Website Development Committee:		
Personnel, Space, Supplies, Equipment, Travel	\$0.00	\$0.00
Statewide Transfer & Articulation Committee:		
Personnel, Space, Supplies, Equipment, Travel	\$0.00	\$0.00
Incentive grants (\$10,000 per campus)	\$120,000.00	\$40,000.00
Miscellaneous subtotal	\$170,000.00	\$90,000.00
TICO Total	\$1,273,940.00	\$608,840.00
Ivy Tech State College Total	\$0.00	\$0.00
Vincennes University Total	\$0.00	\$0.00
Total Annual Budget Request	\$1,273,940.00	\$608,840.00

Total Biennial Request

\$1,882,780.00